FARMINGTON PUBLIC SCHOOLS - 2015 BOND

2017 RENOVATIONS

161664B: ELEMENTARY SCHOOL RENOVATIONS

WOOD CREEK ELEMENTARY SCHOOL

ISSUED FOR: BIDS
DATE: 11-30-16
PROJECT NO.: 161664B

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161664B - Farmington Public Schools, 2015 Bond
WOOD CREEK ELEMENTARY SCHOOL

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1 WOOD CREEK ELEMENTARY SCHOOL
28400 S. HARWICH DR
FARMINGTON HILLS, 48334

Location Map NOT TO SCALE

Farmington Public Schools - 2015 BOND - 2017 RENOVATIONS
161664B: WOOD CREEK ELEMENTARY SCHOOL
Issued for: BIDS Date - 11-30-16

ARCHITECTURAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
A/C & VENT	AIR CONDITIONING & VENTILATION
A/E	ARCHITECT-ENGINEER
AB	ARCHITECT BOLT
ABRSV	ABRASIVE
ABRSV THRESH	ABRASIVE THRESHOLD
ACI	AMERICAN CONCRETE INSTITUTE
ACOUS INSUL	ACOUSTICAL INSULATION
ACOUS PNL	ACOUSTICAL PANEL
ACS DR	ACCESS DOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
ACST SLNT	ACOUSTICAL SEALANT
ADA	AMERICANS W/ DISABILITIES ACT
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADDN	ADDITION
ADJ	ADJACENT
ADJS	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
ALT	ALTERATIONS
ALUM	ALUMINUM
ANES	ANESTHESIA, ANESTESIOLOGY
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APC	ACOUSTICAL PANAL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
ATC	ACOUSTICAL TILE CEILING
AUTO	AUTOMATIC
AVG	AVERAGE
B PL	BASE PLATE
B/B	BACK TO BACK
BC	BOTTOM CHORD
BD	BOARD
BEV	BEVELED
BF	BARRIER FREE
BF	BOTH FACES
BITUM	BITUMINOUS
BL	BUILDING LINE
BLDG	BUILDING
BLDG DAT	BUILDING DATUM
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BR	BEDROOM
BRKT	BRACKET
BRZ	BRONZE
BS	BOTH SIDES
BSMT	BASEMENT
BT	BENT
BTWN	BETWEEN
BULLN	BULLETIN
BUR	BUILT-UP ROOFING
C	CHANNEL
C TO C	CENTER TO CENTER
CA	COMPRESSED AIR
CAB	CABINET
CANTL	CANTILEVER
CATH	CATHETERIZE CATHETER
CB	CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSALLED
CFMF	COLD-FORMED METAL FRAMING
CG	CORNER GUARD
CH	CORNER HOOK
CH BD	CHALK BOARD
CHKD	CHECKERED
CI	CAST IRON
CR	CIRCLE CIRCULAR CIRCULATION
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLIN	CLINICAL
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONARY UNIT
CNVR	CONVEYOR
CO	CLEANOUT
CO2	CARBON DIOXIDE
COL	COLUMN
COMO	COMPOSITION
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONSTR JT	CONSTRUCTION JOINT
CONT	CONTINUATION, CONTINUE, CONTINOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CPRS	COMPRESSIBLE, COMPRESSED
CPS	CARPET (SHEET)
CPI	CARPET (TILE)
CPW	CARPET (WALL BASE)
CR	CARD READER
CR	CHAIR RAIL
CRCMF	CIRCUMFERENCE
CRIT	CRITICAL
CRS	COURSE
CSK	COUNTER SINK
CSS	CLINIC SERVICE SINK
CT	CERAMIC TILE
CT	COMPUTED TOMOGRAHY
CTB	CERAMIC TILE BASE
CTR	CENTER CENTRAL
CTRD	CENTERED
CTRL	CONTROL
CU	CUBIC
CW	COLD WATER

ABBREVIATION	DESCRIPTION
dB	DECIBEL
DBL ACT DR	DOUBLE ACTING DOOR
DECON	DECONTAMINATION
DEG	DEGREE
DEMO	DEMONOLISH DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIFF	DIFFUSER
DIM	DIMENSION
DIST	DISTANCE
DW	DISTILLED WATER
DL	DEAD LOAD
DMF	DAMPROOFING
DN	DOWN
DO	DOOR OPENING OR DATA OUTLET
DR	DOOR
DRP	DECAY RETARDANT PLYWOOD
DRW	DECAY RETARDANT WOOD
DS	DOWNSPOUT
DT	DRAIN TILE
DW	DISTILED WATER
DWG	DRAWING
DWL	DOWEL
E	EAST
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANDING JOINT
EKG	ELECTRO-CARDIOGRAM
EL	ELEVATION
ELEC	ELECTRICAL OR ELECTRONIC
ELEV	ELEVATOR
EMBED	EMBEDMENT
EMER	EMERGENCY
EMER SHR	EMERGENCY SHOWER
EMER SHR/EWS	EMERGENCY SHOWER/EYE WASH
ENCL	ENCLOSURE
ENTR	ENTRANCE
EQ	EQUAL
EQUIP	EQUIPMENT
ER	EMERGENCY ROOM
ETR	EXISITING TO REMAIN
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EX	EXISTING
EXC	EXCAVATE
EXH	EXHAUST
EXIST	EXISTING
EXTR	EXTRUDED
F/F	FACE TO FACE
FD	FLOOR DRAIN
FE	FIRE EXTINGUSHER
FEC	FIRE EXTINGUSHER CABINET
FH	FLAT HEAD
FHR	FIRE HOSE RACK/ REEL
FIN	FINISH OR FINISHED
FIP	FOAMED-IN-PLACE
FIXT	FIXTURE
FJ	FALSE JOINT
FLASH	FLASHING
FLG	FLANGE
FLR	FLOOR
FM	FACTORY MUTUAL
FNDN	FOUNDATION
FOC	FACE OF COLUMN
FR	FIRE RATED
FRP	FIRE RATED PLYWOOD
FRPFG	FIREPROOFING
FRW	FIRE RATED WOOD
FT	FOOT OR FEET
FTG	FOOTING
FURN	FURNITURE
g	GRAM
GA	GAUGE
GALV	GALVANIZED
GCW	GLAZED CURTAINWALL
GDR	GUARDRAIL
GEN	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRP	GLASS-FIBER REINFORCED PLSTIC
GHT	GLAZED HOLLOW TILE
GI	GALVANIZED IRON
GL	GLASS, GLAZING
GR	GRADE
GR BM	GRADE BEAM
GRAD	GRADIENT
GRL	GRILLE
GRTG	GRATING
GYO	GYPSUM
H	HIGH
HB	HOSE BIBB
HD	HEAVY DUTY
HDW	HARDWARE
HEX	HEXAGON
HM	HOLLOW METAL
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HOSP	HOSPITAL
HPT	HIGH POINT
HR	HOUR
HSKPG	HOUSE KEEPING
HSS	HOLLOW STRUCTURAL SECTIONS
HT	HEIGHT
HTG	HEATING
HVAC	HEATING VENTAILATION AIR CONDITIONING
HW	HOT WATER
HWY	HIGHWAY
HYD	HYDRANT

ABBREVIATION	DESCRIPTION
JC	JANITORS CLOSET
JT	JOINT
L	ANGLE
L	LENGTH
LAB	LABORATORY
LAM	LAMINATED
LAV	LAVATORY
LBS	LABORATORY
LG	LONG
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LN	LINEAR
LKR	LOCKER ROOM
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOUVER OPENING
LPT	LOW POINTLTLIGHT
LT WT	LIGHTWEIGHT
LTG	LIGHTING
LVR	LOUVER
MACH	MACHINE
MAG	MAGNET OR MAGNETIC
MAR	MARBLE
MAS	MASONARY
MATL	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MBC	MICHIGAN BUILDING CODE
MC	MICELLANEOUS CHANNEL
MCA	MEDICAL COMRESSED AIR
MCL	METAL CEILING (LINER)
MCP	METAL CEILING (PAN)
MECH	MECHCANICAL
MED	MEDICAL
MEMB	MEMBRANE
MEMB RFG	MEMBRANE ROOFING
MEZZ	MEZZANINE
MFG	MANUFACTURING
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOD BIT	MODIFIED BITUMEN
MR	MOISTURE RESISTANT
MRI	MAGNETIC RESONANCE IMAGING
MRT	MARBLE THRESHOLD
MTC	METAL TOILET COMPARTMENT
MTD	MOUNTED
MTL	METALIC OR METAL
MTL FAB	METAL FABRICATIONS
MULL	MULLION
N	NORTH
N2	NITROGEN
N20	NITROUS OXIDE
NARC	NARCOTICS
NATL	NATIONAL
NC	NOISE CRITERIA
NE	NORTH EAST
NFPA	NATIONAL FIRE PROTECTIONA ASSOCIATION
NIC	NOT IN CONTACT
NL	NIGHT LIGHT
NO	NUMBER OR NUMBERS
NOM	NOMINAL
NOUR	NOURISHMENT
NS	NURSE STATION
NSF	NATIONAL SANITATION FOUNDATION
NW	NORTHWEST
O2	OXYGEN
O/O	OUT TO OUT
OBS	OBSERVATION
OBSC GL	OBSCURE GLASS
OBW	OBSERVATION WINDOW
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFF	OFFICE
OFRC	OVERFLOW ROOF CONDUCTOR
OFRS	COVERFLOW ROOF SUMP
OH DR	OVERHEAD DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
ORN	ORNAMENTAL
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
Oz	OUNCE
PACU	POST ANESTHESIA UNIT
PB	PUSH BUTTON
PC	PIECE OR PIECES
PEND	PENDENT
PERF	PERFORATED
PERM	PERMANENT
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMMING
PLT	PLATE OR PLATED
PLTC	PLASTIC LAMINATE TOILET COMPARTIMENT
PLYD	PLYWOOD
PMF	PERMANENT METAL FORM
PNEU	PNEUMATIC
PNL	PANEL
PORC	PORCELAIN
PORT	PORTABLE
POS	POSITION
PP	PANEL POINT
PR	PAIR
PREFAB	PREFABRICATED
PREP	PREPARATION
PROC	PROCESS OR PROCESSING

ABBREVIATION	DESCRIPTION
QT	QUARRY TILE
R	RADIUS
R	RISER
RB	RESILENT BASE
RC	ROOF CONDUCTOR
RCPTR	RECEPTOR
RCVG	RECEIVING
REC	RECESS OR RECESSED
REF	REFERENCE
REF	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE OR REINFORCED
REV	REVISION
RF	RADIOGRAPHY & FLOUROSCOPY
RFG	ROOFING
RFO	ROOF OPENING
RH	RIGHT HAND
RHB	ROOF HOSE BOX
RHR	RIGHT HAND REVERSE
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
RR	RAILROAD
RS	ROOF SUMP
RSF	RESILIENT SHEET FLOORING
RTF	RESILIENT TILE FLOORING
RTNG	RETAINING
RTU	ROOF TOP UNIT
RV	ROOF VENTILATOR
RVS	REVERSE
S	SOUTH
S	S-SHAPE STEEL MEMBER
SAB	SOUND ATTENUATION BLANKET
SAF	SPRAY APPLIED FIREPROOFING
SB	SOIL BORING
SCHED	SCHEDULE
SDG	SIDING
SE	SOUTHEAST
SECT	SECTION
SECY	SECRETARY
SH	SHOWER
SHT	SHEET
SI	STEEL & IRON WORK
SIM	SIMILAR
SLDG	SLIDING
SLDG WDW	SLIDING WINDOW
SLNT	SEALANT
SLV	SHORT LEG VERTICAL
SM	SHEET METAL
SP	SHAFT PARTITION
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SQ	SQUARE
SSK	SERVICE SINK
SST	STAINLESS STEEL
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIF	STIFFENER
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
STRUCT STL	STRUCTURAL STEEL
SURF	SURFACE
SUSP	SUSPENDED OR SUSPENSION
SV	SHEET VINYL
SW	SOUTH WEST
SW	SWITCH
SWD-FR	SHEATHING WOOD-FIRE RETARDANT
SYM	SYMMETRICAL
T	TREAD
T & G	TOUNGUE & GROOVE
T & R	TREAD & RISER
TA	TOILET ACCESSORIES
TB	TACK BOARD
TBD	TO BE DETERMINED
TEL	TELEPHONE
TEMP	TEMPERATURE
TERR	TERRAZZO
THD	THREAD
THK	THICK OR THICKNESS
THRESH	THRESHOLD
TK BD	TACKBOARD
TOC	TOP OF CONCRETE (ELEVATION)
TOIL	TOILET
TOIL RM	TOILET ROOM
TOR	TOP OF RAIL (ELEVATION)
TOS	TOP OF STEEL (ELEVATION)
TOW	TOP OF WALL (ELEVATION)
TRAN	TRANSOM
TV	TELEVISION
TYP	TYPICAL
UC	UNDERCABINET
UG	UNDERGROUND
UM	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UN	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
U/S	UNDERSIDE
VAC	VACUUM
VENT	VENTILATION OR VENTILATING
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VIT	VITREOUS
VOL	VOLUME
VWC	VINYL WALL COVERING
W	WEST
W	WIDE FLANGE SHAPES
W	WIDE OR WIDTH

TYPICAL NOTES

TYPICAL CONSTRUCTION NOTES:

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.
2. ALL MATERIALS SHALL BE INSTALLED/APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S REGULATIONS.
3. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR VISITING THE JOB SITE AND FAMILIARIZING THEMSELVES WITH EXISTING CONDITIONS PRIOR TO START OF WORK. ALL DIMENSIONS AND FIELD CONDITIONS SHALL BE VERIFIED, AND ARCHITECT NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE RECEIPT OF BIDS. FAILURE OF THE CONTRACTOR TO VERIFY ALL CONDITIONS PRIOR TO THE AWARD OF BID WILL NOT BE CONSIDERED AS GROUNDS FOR AN EXTRA.
4. ALL EXISTING DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BY CONTRACTOR PRIOR TO THE FABRICATION OR PURCHASE OF MATERIALS.
5. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE CONTRACT. PROVIDE ALL NECESSARY TEMPORARY PROTECTION, SHORING, BRACING, ETC. AS REQUIRED TO ENSURE THE SAFETY OF THE GENERAL PUBLIC DURING CONSTRUCTION.
6. ALL ITEMS SHALL BE AS SPECIFIED BY ARCHITECT. SUBMIT SUBSTITUTION REQUESTS DURING BIDDING FOR REVIEW.
7. SUBMIT SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES TO THE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION/APPLICATION.
8. ALL DEBRIS SHALL BE LEGALLY DISPOSED OF OFF THE SITE BY THE CONTRACTOR.
9. ALL PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING MATERIALS AND CONSTRUCTION TO REMAIN.
10. CONTRACTOR SHALL CUT AND PATCH EXISTING WALLS, FLOORS, CEILINGS, ETC., AS REQUIRED TO COMPLETE THE WORK WITHOUT EXTRA COST TO OWNER.
11. CONTRACTOR SHALL KEEP NOISE, DUST, ETC., TO A MINIMUM STANDARD AS SET FORTH BY THE OWNER.
12. CONTRACTOR SHALL COORDINATE INSTALLATION AND PHASING OF WORK WITH THE CONSTRUCTION MANAGER, ARCHITECT AND OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK.

ARCHITECTURAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
N	PROJECT NORTH - TRUE NORTH AS INDICATED ONLY ON SITE PLAN		EXISTING DOOR TO REMAIN
			EXISTING DOOR TO BE REMOVED
OFFICE 101	ROOM NAME & NUMBER		NEW DOOR
	DOOR SCHEDULE TAG		EXISTING WALL TO BE REMOVED
B 5 6 A A2.1	INTERIOR ELEVATION SYMBOL		
10 A4.3	EXTERIOR ELEVATION SYMBOL		
11 A4.1	WALL SECTION / DETAIL		
3 A1.6	DETAIL OR PLAN ENLARGEMENT		

DETAIL NUMBER

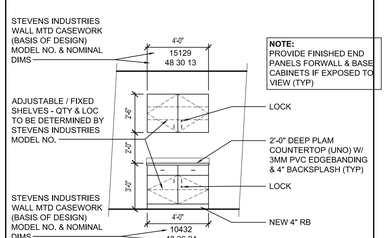
DETAIL TITLE
- TITLES INDICATED ARE FOR CONVENIENCE ONLY AND DO NOT NECESSARILY IDENTIFY ALL LOCATIONS WHER THE DETAIL OCCURS

3 AC-1.0 INTERIOR ELEVATION

S C A L E : 1/4" = 1' - 0"

DETAIL SCALE

DETAIL REFERENCE
- WHEN PRESENT, REFERENCE INDICATION IDENTIFIES SHEETS WHERE THE DETAIL OCCURS
- REFERENCES INDICATED ARE FOR CONVENIENCE ONLY, AND DO NOT NECESSARILY INCLLUDE ALL LOCATIONS WHERE THE DETAIL OCCURS



3 A-1.0 INTERIOR ELEVATION TYPICAL NOTES

S C A L E : 1/4" = 1' - 0"

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

GENERAL INFORMATION
SYMBOLS
ABBREVIATIONS

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 23, 2016

SHEET NO.
G4.1

JOB NO. 161664B

REFLECTED CEILING PLAN KEY NOTES:

PLEASE NOTE:
NOT ALL FLOOR PLAN KEYNOTES APPLY TO EACH BUILDING.

1. REMOVE AND REINSTALL AND MODIFY EXISTING LAY-IN CEILING SYSTEM AS REQ'D FOR ALL NEW CONSTRUCTION AND OVERHEAD WORK. ADD NEW TILES/GRID ETC. TO CONTINUE EXISTING PATTERN AS REQ'D (VIF)
2. NOT USED
3. PROVIDE NEW 2X4 ACOUSTIC CEILING AND T GRID SEE FINISH SCHEDULE FOR HT.
4. NOT USED
5. NOT USED

NOTES:
1. NOT ALL WALL TYPES ARE USED ON EACH FLOOR.
2. EXTEND WALLS UP FULL HEIGHT TO DECK ABOVE (U.N.O.)
3. DO NOT FASTEN VERTICAL STUDS TO TOP RUNNER TRACK @ SECOND FLOOR ASSEMBLIES. USE SLIP TRACK TO ALLOW FOR DEFLECTION OF STRUCTURE WITHOUT COMPROMISING WALL INTEGRITY.

WALL TYPES:

A. NOMINAL 5", ACTUAL 4 7/8":
5/8" HI- IMPACT GYP BD BOTH SIDES OF 3 5/8" 20 GA METAL STUDS AT 1'-4" O.C. MAX W/ SOUND ATTEN BLANKETS IN ALL VOIDS FULL HEIGHT

B. NOT USED

C. NOMINAL 8", ACTUAL 7 5/8":
8" CMU

D. NOT USED

E. NOT USED

F. NOMINAL 2"
5/8" HI-IMPACT GYP. BD. ON 1 5/8" METAL FURRING AT 1'-4" O.C.

G. NOT USED

H. NOT USED

J. NOMINAL 7", ACTUAL 7 1/4"
5/8" HI-IMPACT GYP BOARD ON METAL, ON 6" METAL STUDS AT 1'-4" O.C. MAX W/ SOUND BLANKETS INSTALLED IN VOIDS FULL HEIGHT

K. NOT USED

L. NOT USED

M. NOT USED

NEW WORK PLAN KEYNOTES: CONTINUE

PLEASE NOTE:
NOT ALL FLOOR PLAN KEYNOTES APPLY TO EACH BUILDING.

48. NOT USED
49. NOT USED
50. NOT USED
51. PAINT OUTSIDE OF EXISTING WOOD CABINET

ELEMENTARY SCHOOL - NEW WORK PLAN KEYNOTES:

PLEASE NOTE:
NOT ALL FLOOR PLAN KEYNOTES APPLY TO EACH BUILDING.

1. INSTALL NEW DOOR AND HARDWARE PER SCHEDULE
2. INSTALL NEW ALUMINUM FRAME PER DOOR SCHEDULE
3. INSTALL NEW H.M. FRAME PER DOOR SCHEDULE
4. AT NEW DOOR OR WINDOW OPENING PROVIDE MASONRY PRECAST LINTEL ABOVE DOOR BEARING ON 8" MIN EACH SIDE. (TOOTH IN NEW CMU TO MATCH EXISTING MASONRY COURSING @ JAMBS FULL HEIGHT.) PROVIDE GALV. STEEL ANGLE LINTEL TO CARY BRICK VENEER IF APPLICABLE - SIZE TBD IN FIELD
5. NOT USED
6. PAINT ALL WALLS IN ROOM FULL HEIGHT. SEE FINISH SCHEDULE FOR MORE INFO.
7. INSTALL NEW LOCKERS ON 4" CONC. BASE.
8. INSTALL NEW 4" CONC. LOCKER BASE. (AS DETAILED).
9. INSTALL NEW WALL TILE. SEE ELEVATIONS.
10. NOT USED .
11. NOT USED
12. INSTALL NEW WALL MTD. ROOM SIGNAGE IN CORRIDOR.
13. NOT USED
14. NOT USED
15. PROVIDE NEW TOILET AND URINALS. PROVIDE NEW SINKS AS INDICATED. (SEE MECHANICAL)
16. NOT USED
17. PROVIDE NEW BATHROOM ACCESSORIES.
18. NOT USED
19. PAINT CMU WALLS ABOVE CERAMIC TILE WAINSCOT.
20. NOT USED
21. PROVIDE AND INSTALL NEW LVT.
22. PROVIDE AND INSTALL NEW CPT.
23. PROVIDE AND INSTALL NEW PCT FLOOR.
24. NOT USED
25. PROVIDE AND INSTALL NEW P. LAM. CASEWORK PER ELEVATION.
26. NOT USED
27. PROVIDE NEW ALUMINUM FRAMED WINDOW TO MATCH WINDOW IN ADJACENT CLASSROOM.
28. NOT USED
29. NOT USED
30. INSTALL NEW CEILING COMPLETE
31. NOT USED
32. NOT USED
33. INFILL DOOR OPENING WITH CMU TO MATCH THICKNESS AND TOOTH IN TO MATCH COURSING AT JAMBS. TOOTH IN NEW BRICK VENER AT CORRIDOR WALLS TO MATCH EXISTING IF APPLICABLE.
34. NEW 4" CONC. FLOOR W/W.W.F. ON VAPOR BARRIER ON 8" MIN. COMP. FILL. MATCH ELEVATION OF ADJACENT FLOOR.
35. APPLY NEW GYP. BD. TO SOFFIT FULL LENGTH TO COVER HOLES/GAPS LEFT BY TRACK REMOVAL.
36. SCAPE CMU WALL FLUSH AFTER STAGE REMOVAL, TUCKPOINT ALL CMU JOINTS FLUSH AND PREP FOR NEW PAINT FINISH (V.I.F.)
37. NEW CUSTOM ROUND WINDOW ALUM. FRAME W/1" INSUL. GLASS,. SEE ELEVATIONS.
38. NEW OFFICE FURNITURE (BY OTHERS)
39. INSTALL WALK-OFF CARPET IN ENTIRE ROOM.
40. NEW 18" METAL COLUMN ENCLOSURE. SEE SPEC + DETAILS.
41. NOT USED
42. PAINT GYP. BD. WALL FULL HEIGHT WITH MARKER BOARD PAINT.
43. NOT USED
44. NEW WINDOW TREATMENTS ON ALL WINDOWS IN ROOM.
45. NOT USED
46. NOT USED
47. NOT USED

DEMO PLAN NOTES: (CONTINUE)

PLEASE NOTE:
NOT ALL DEMO PLAN KEYNOTES APPLY TO EACH BUILDING.

45. NOT USED
46. NOT USED
47. NOT USED
48. NOT USED
49. NOT USED
50. NOT USED
51. NOT USED
52. NOT USED
53. NOT USED
54. NOT USED
55. NOT USED
56. NOT USED
57. NOT USED
58. NOT USED

ELEMENTARY SCHOOL - DEMO PLAN NOTES:

PLEASE NOTE:
NOT ALL DEMO PLAN KEYNOTES APPLY TO EACH BUILDING.

1. REMOVE EXISTING DOOR AND HARDWARE COMPLETE.
2. REMOVE EXISTING HM FRAME AND GLASS COMPLETE.
3. REMOVE EXISTING FRAME AND GLASS COMPLETE.
4. REMOVE PORTION OF EXISTING WALL FOR NEW DOOR OR WINDOW OPENING PATCH FLOOR LEVEL. PROVIDE LINTEL FOR OPENING.
5. REMOVE EXISTING WALL COMPLETE. (SHOWN DASHED) INCLUDING ALL DOORS, GLAZING, COAT HOOKS, ETC. AS INDICATED BY DRAWINGS. GRIND FLOOR SMOOTH FOR NEW FLOOR OR CONSTRUCTION AS INDICATED IN NEW WORK PLAN.
6. NOT USED
7. REMOVE EXISTING COAT HOOKS. PATCH WALL AND PAINT TO MATCH EXISTING.
8. REMOVE EXISTING WALL TILE COMPLETE. PREP FOR NEW FINISH AS INDICATED ON NEW WORK PLAN.
9. NOT USED
10. NOT USED
11. REMOVE EXISTING FOLDING PARTITION WALL SYSTEM COMPLETE INCLUDING TRACK, MOTOR, ETC. (SOFFIT TO REMAIN U.N.O.)
12. REMOVE ALL EXISTING WALL MOUNTED SIGNAGE PATCH AND PREP FOR NEW SIGNAGE.
13. NOT USED
14. REMOVE ALL WALL MOUNTED TOILET ACCESSORIES AND TOILET PARTITIONS IN ROOM. PATCH ALL HOLES IN WALLS AND FLOORS.
15. REMOVE ALL PLUMBING FIXTURES. SEE MECH. DRAWINGS.
16. REMOVE EXISTING CONCRETE FLOOR SLAB COMPLETE (4 - 6" THICK).
17. NOT USED
18. REMOVE EXISTING CARPET, TRANSITION STRIP, RESIL BASE, ETC. SCRAPE ALL MASTICE & ADHESIVES FROM CONCRETE FLOOR AS REQUIRED (DO NOT USE CHEMICAL REMOVAL TECHNIQUES). FILL AND LEVEL TO PREP FLOOR FOR NEW FLOOR FINISHES AND BASE AS INDICATED ON DRAWINGS AND SCHEDULES.
19. REMOVE EXISTING VCT, TRANSITION STRIPS, RESIL BASE, ETC. SCRAPE ALL MASTICE & ADHESIVES FROM CONCRETE FLOOR AS REQUIRED. (DO NOT USE CHEMICAL REMOVAL TECHNIQUES). FILL AND LEVEL TO PREP FLOOR FOR NEW FLOOR FINISHES AND BASE AS INDICATED ON DRAWINGS AND SCHEDULES.
20. NOT USED
21. REMOVE EXISTING PCT, TRANSITION STRIPS, RESIL BASE, ETC. SCRAPE ALL MASTICE & ADHESIVES FROM CONCRETE FLOOR AS REQUIRED. (DO NOT USE CHEMICAL REMOVAL TECHNIQUES). FILL AND LEVEL TO PREP FLOOR FOR NEW FLOOR FINISHES AND BASE AS INDICATED ON DRAWINGS AND SCHEDULES.
22. REMOVE ALL KITCHEN APPLIANCES INCLUDING ALL GAS, WATER, ELECTRICAL. CUT AND CAP BELOW CONCRETE PATCH FLUSH.
23. REMOVE EXISTING P. LAM. CASEWORK AND/OR FURNITURE.
24. NOT USED
25. REMOVE PORTION OF EXISTING CHASE WALL FOR NEW AIR LOUVER. PROVIDE PC CONCRETE LINTEL. SEE MECH. FOR SIZE.
26. REMOVE EXISTING TACK BOARDS.
27. REMOVE EXISTING MARKER/CHALK BOARDS
28. REMOVE RAISED STAGE CONSTRUCTION COMPLETE.
29. REMOVE LAY-IN CEILING SYSTEM COMPLETE INCLUDING SUPPORT FRAMING/WIRE.
30. NOT USED
31. NOT USED
32. REMOVE EXISTING HARD CEILING CONSTRUCTION COMPLETE
33. REMOVE EXISTING TRACK + SUPPORTS. PATCH HOLES IN WALLS FLUSH AS REQ'D.
34. EXISTING WALL LADDER TO REMAIN.
35. NOT USED
36. NOT USED
37. NOT USED
38. REMOVE EXISTING WINDOW TREATMENTS COMPLETE INCLUDING TRACK, ETC. IN ENTIRE ROOM.
39. REMOVE ALL EXISTING RACEWAYS FROM WALL
40. EXISTING TILE FLOOR AND MASTIC TO BE REMOVED BY ABATEMENT CONTRACTOR
41. EXISTING DOOR FRAME TO BE REMOVED BY ABATEMENT CONTRACTOR
42. EXISTING HARD CEILING TO BE REMOVED BY ABATEMENT CONTRACTOR
43. REMOVE EXISTING WOOD COAT SHELF AND BOOT SHELF COMPLETE. PATCH HOLES IN WALL FLUSH.
44. REMOVE RECESSED F.E.C. FILL OPENING WITH CMU MATCH COURSING (V.I.F.)

WA

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY

DEMO PLAN KEY NOTES
FLOOR PLAN KEY NOTES
REFL. CLG PLAN KEY NOTES
WALL TYPES

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

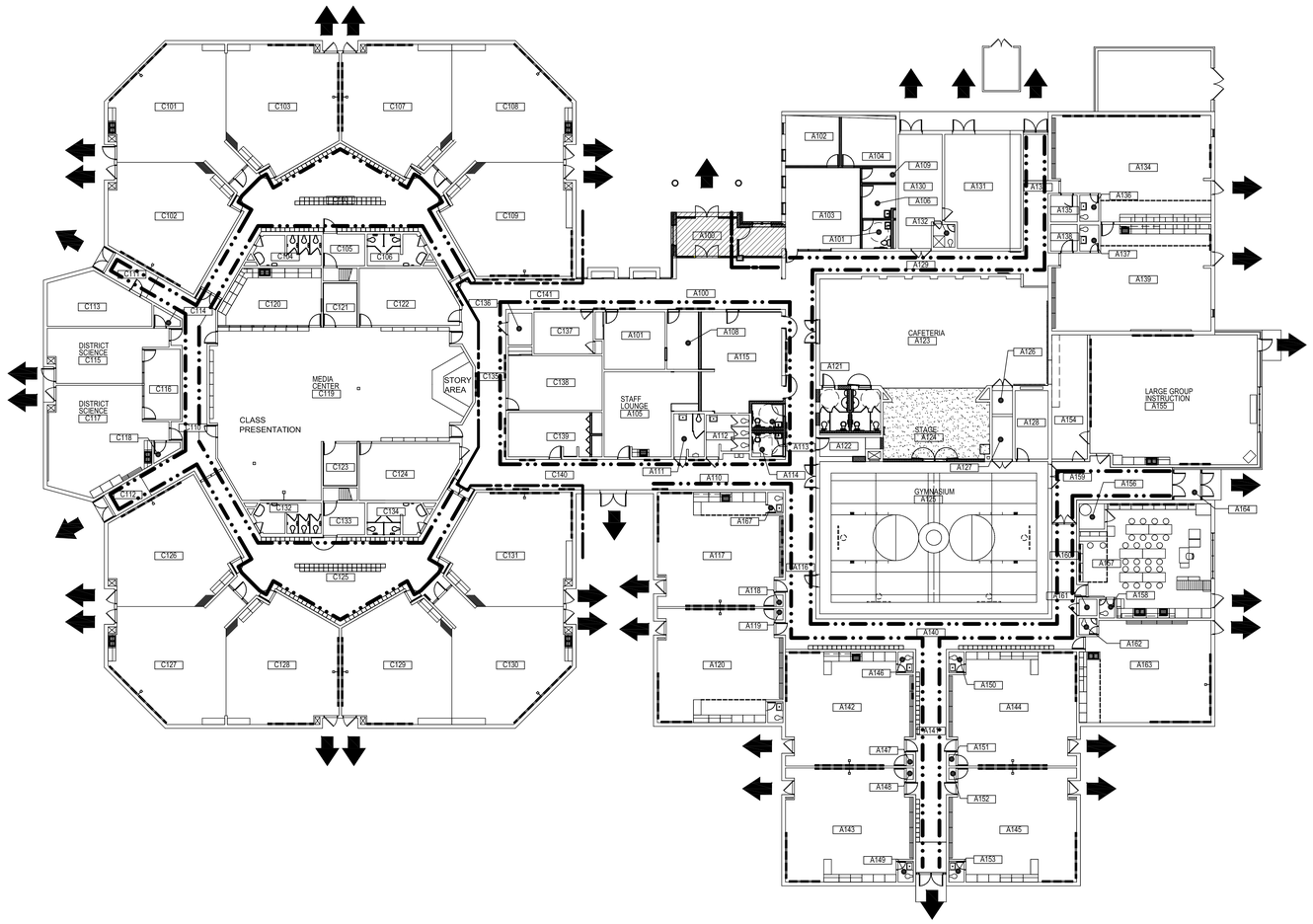
DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 30, 2016

SHEET NO.
G4.2WC

JOB NO. 161664B



1
-
COMPOSITE FIRST FLOOR PLAN
SCALE: 1/16" = 1'-0"

N

BUILDING CODE SUMMARY

PROJECT: WOOD CREEK ELEMENTARY

ADDRESS 28400 S HARWICH DR
FARMINGTON HILLS, MI 48334

PROPOSED USE: K-12 EDUCATIONAL FACILITY

REFERENCE CODES:

NFPA: 101 LIFE SAFETY CODE, 2012 EDITION
BUILDING: 2012 MICHIGAN BUILDING CODE
MECHANICAL: 2012 MICHIGAN BUILDING CODE
PLUMBING: 2012 MICHIGAN BUILDING CODE
ELECTRICAL: 2011 MICHIGAN ELECTRICAL CODE
RENOVATION: 2012 MICHIGAN REHABILITATION CODE

BUILDING DATA

USE GROUP: E

( ) ASSEMBLY:_____
( ) BUSINESS
(X) EDUCATIONAL
( ) FACTORY-INDUSTRIAL-LOW HAZARD
( ) FACTORY-INDUSTRIAL-MODERATE HAZARD
( ) HIGH HAZARD:_____
( ) INSTITUTIONAL: 1-3 CONDITIONS IV
( ) MERCANTILE
( ) RESIDENTIAL:_____
( ) STORAGE-LOW HAZARD
( ) STORAGE-MODERATE HAZARD
( ) UTILITY, MISCELLANEOUS

CONSTRUCTION TYPE:

( ) TYPE 1A - PROTECTED
( ) TYPE 1B - PROTECTED
( ) TYPE 2A - PROTECTED
( ) TYPE 2B - PROTECTED
(X) TYPE 2C - UNPROTECTED
( ) TYPE 3 - PROTECTED
( ) TYPE 3 - UNPROTECTED
( ) TYPE 4 - HEAVY TIMBER
( ) TYPE 5 - PROTECTED
( ) TYPE 5 - UNPROTECTED

( ) MIXED CONSTRUCTION TYPE:_____

SPRINKLED? ( ) REQUIRED ( ) PROVIDED ( ) PARTIAL

BUILDING HEIGHT PERMITTED: 55'
ACTUAL BUILDING HEIGHT: 26'
MEZZANINE: ( ) YES (X) NO

HIGH RISE: ( ) YES (X) NO

GROSS BUILDING AREA :

NEW ADDITION: 305 S.F.

EXISTING BUILDING: 49,834 S.F.

TOTAL AREA: 50,139 S.F.

AREA MODIFICATION APPLIED?
( ) YES (X) NO

PERIMETER MODIFICATIONS APPLIED?
( ) YES (X) NO

FIRE RESISTANCE RATINGS PROVIDED

	HOURLY RATING	DETAIL # & SHEET #	% WALL OPENING	DESIGN NO. FOR RATED ASSEMBLIES
PARTY/FIREWALLS:				
EXTERIOR BEARING WALLS				
NORTH	.	.	.	.
EAST	.	.	.	.
WEST	.	.	.	.
SOUTH	.	.	.	.
EXTERIOR NON-BEARING WALLS				
NORTH	.	.	.	.
EAST	.	.	.	.
WEST	.	.	.	.
SOUTH	.	.	.	.
INTERIOR WALLS				
BEARING	.	.	.	.
NON-BEARING	.	.	.	.
TENANT SEPARATION (OFFICES)	.	.	.	.
FIRE SEPARATION ASSEMBLIES				
EXIT ENCLOSURES	.	.	.	.
CEILING-FLOOR ASSEMBLY	.	.	.	.
BEAMS	.	.	.	.
COLUMNS	.	.	.	.
CEILING-ROOF ASSEMBLY	.	.	.	.
VERTICAL SHAFTS	.	.	.	.
MIXED OCCUPANCY SEPARATION	.	.	.	.
TENANT SEPARATION	.	.	.	.
EXIT ACCESS CORRIDORS	.	.	.	.
SMOKE BARRIERS	.	.	.	.

LIFE SAFETY SYSTEMS

EMERGENCY LIGHTING AND EXIT SIGNS	(X) REQUIRED	(X) PROVIDED
FIRE ALARMS	(X) REQUIRED	(X) PROVIDED
SMOKE DETECTION SYSTEMS	(X) REQUIRED	(X) PROVIDED
PANIC HARDWARE	(X) REQUIRED	(X) PROVIDED
FIRE SUPPRESSION SYSTEM	( ) REQUIRED	( ) PROVIDED
STANDPIPE SYSTEM	( ) REQUIRED	( ) PROVIDED

EXIT REQUIREMENTS

DEAD END LIMIT-MAXIMUM CONDITION (1018.4):
ALLOWED: 20'
ACTUAL: 0'

TRAVEL DISTANCE TO EXIT-MAXIMUM CONDITION (TABLE 1016.1):
ALLOWED: 200'
ACTUAL: --'

COMMON PATH OF TRAVEL (1014.3):
ALLOWED: 75'
ACTUAL: --'

NUMBER OF EXITS (1021):
REQUIRED: 2
PROVIDED: 34

DESIGN LOADS: (SEE STRUCTURAL DRAWINGS)

LEGEND:

= EXISTING 2 HOUR RATED FIRE WALL CONSTRUCTION WITH 90 MINUTE OPENING PROTECTIVE.

= EXISTING 1 HOUR FIRE RATED SEPARATION WALL WITH 20 MINUTE DOOR OPENING PROTECTIVE.

= EXTERIOR EGRESS EXIT

= SECURE ENTRY VESTIBULE ADDITION

= NEW 1 HOUR FIRE RATED SEPARATION WALL WITH 20 MINUTE DOOR OPENING PROTECTIVE

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY SCHOOL

LIFE SAFETY PLAN & CODE ANALYSIS

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 30, 2016

SHEET NO.

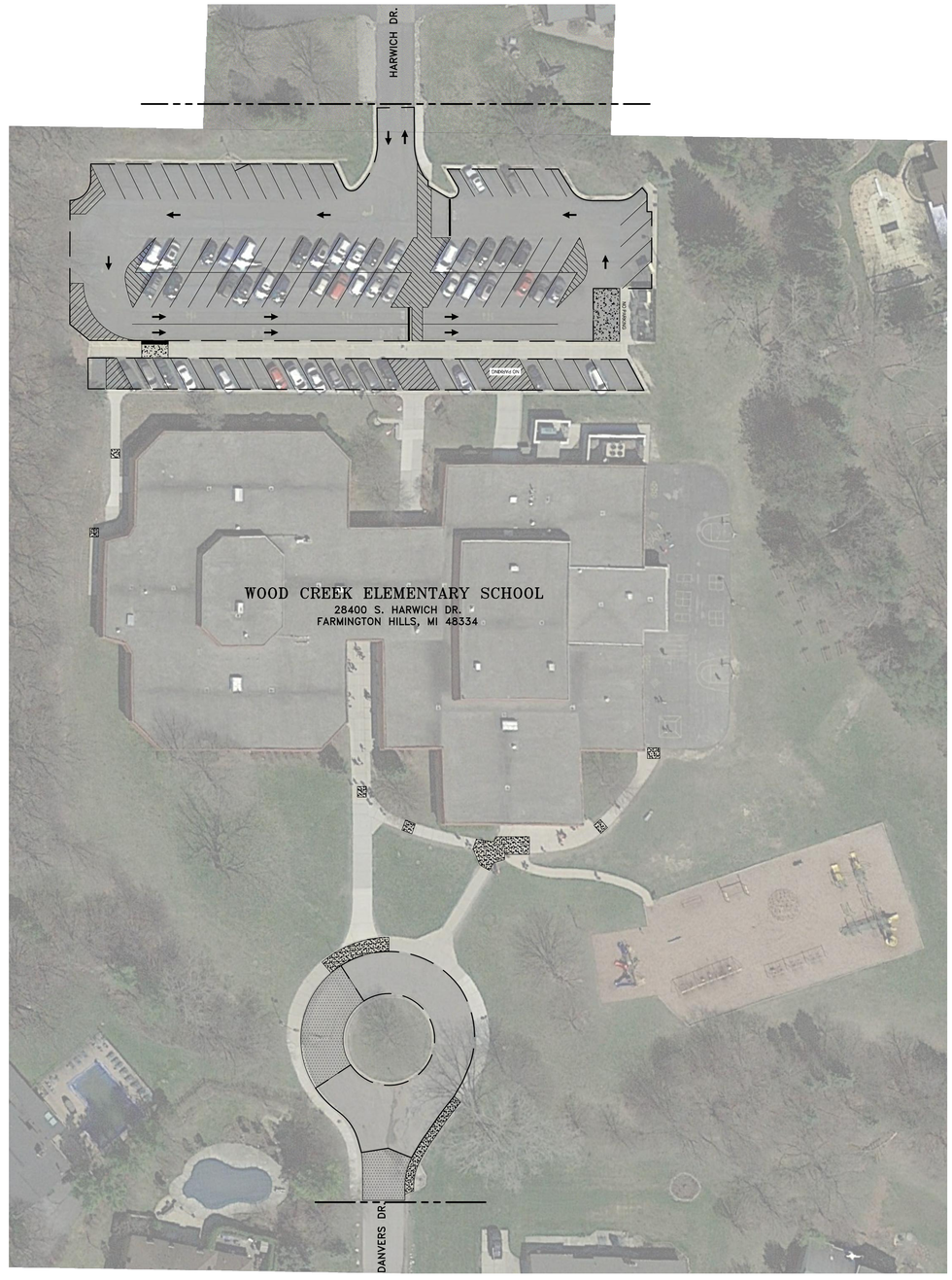
LS1.0WC

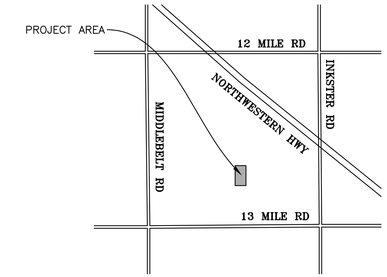
JOB NO. 161664B

NORTH

W 1"=40' E

S





LOCATION MAP
(NOT TO SCALE)

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Fax 586-726-8790
AEW NO. 0577-0089

FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY

GENERAL PLAN

PRELIMINARY ■
DESIGN DEVELOPMENT ■
CONSTRUCTION ■
FINAL RECORD □

DRAWN BY KJP
CHECKED BY JS

REVISIONS

DATE: November 23, 2016

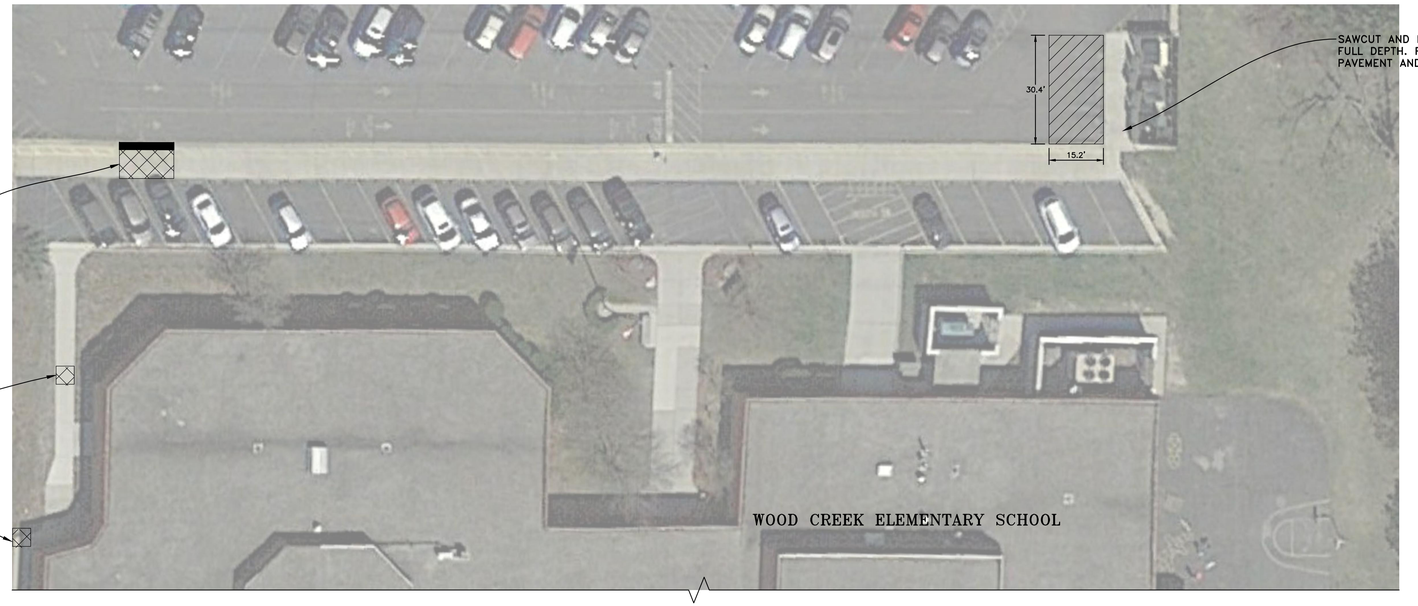
SHEET NO.
C1.0W

JOB NO. 161664B

NORTH

W 1"=20' E

S



SAWCUT AND REMOVE ASPHALT
FULL DEPTH. REMOVE 21AA AGG. BASE.
PAVEMENT AND STONE DEPTH UNKNOWN

REMOVE DAMAGED CURB AND WALK
SAWCUT AT NEAREST JOINT (TYP.)

REMOVE DAMAGED CONC. WALK
SAWCUT AT NEAREST JOINT (TYP.)

REMOVED DAMAGED CONC. WALK
SAWCUT AT NEAREST JOINT (TYP.)

REMOVE DAMAGED CONC. WALK
REMOVE CURB-FACE FULL DEPTH.
SAWCUT AT NEAREST JOINT (TYP.)

SAWCUT AND REMOVE ASPHALT
FULL DEPTH. REMOVE 21AA AGG. BASE.
PAVEMENT AND STONE DEPTH UNKNOWN

APPROX. LOCATION OF PROPERTY LINE

REMOVAL LEGEND

- REMOVE PAVEMENT, FULL DEPTH
- CONCRETE WALK REMOVAL (AS MARKED IN THE FIELD)
- CONCRETE CURB & GUTTER REMOVAL (AS MARKED IN THE FIELD)

APPROX. REMOVAL QUANTITIES

PAVEMENT REMOVAL	300 SY
CURB REMOVAL	15 LF
CONC. WALK REMOVE	1400 SF

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY

REMOVAL PLAN

PRELIMINARY ■
DESIGN DEVELOPMENT ■
CONSTRUCTION ■
FINAL RECORD □

DRAWN BY KJP
CHECKED BY JS

REVISIONS

DATE: November 23, 2016

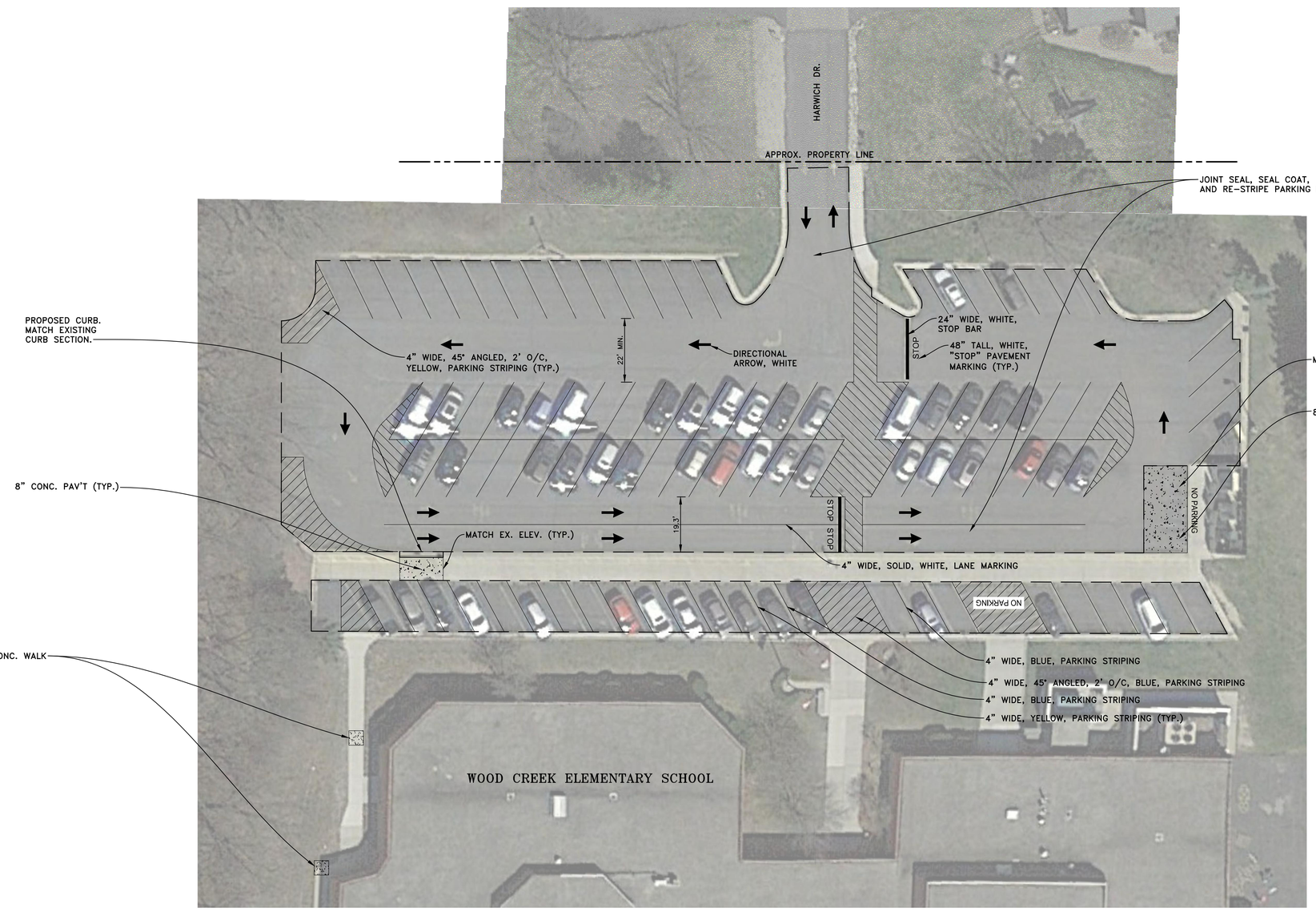
SHEET NO.
C2.0W

JOB NO. 161664B

NORTH

W 1"=20' E

S



STRIPING NOTES:

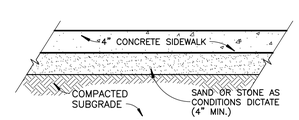
1. ALL STRIPING AND MARKINGS REQUIRE A MINIMUM OF TWO COATS.
2. CONTRACTOR TO FIELD VERIFY EXISTING STRIPING AND MARKINGS PRIOR TO SEALCOATING AND REPLICATE.

PAVING LEGEND

- 4" CONCRETE SIDEWALK
- 8" CONC. PAVT.
- CONC. CURB & GUTTER
- LIMITS OF SEAL COAT

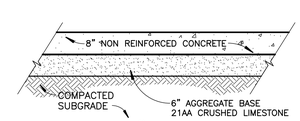
APPROX. QUANTITIES

8" CONC. PAV'T	70 SY
CURB AND GUTTER	15 LF
4" CONC. WALK	50 SF
SEAL COAT	4,500 SY
JOINT SEAL	2,000 FT



TYPICAL 4" CONCRETE SIDEWALK SECTION

NOT TO SCALE



TYPICAL 8" CONCRETE PAVEMENT SECTION

NOT TO SCALE

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY

PAVING PLAN NORTH

PRELIMINARY ■
DESIGN DEVELOPMENT ■
CONSTRUCTION ■
FINAL RECORD □

DRAWN BY KJP
CHECKED BY JS

REVISIONS

DATE: November 23, 2016

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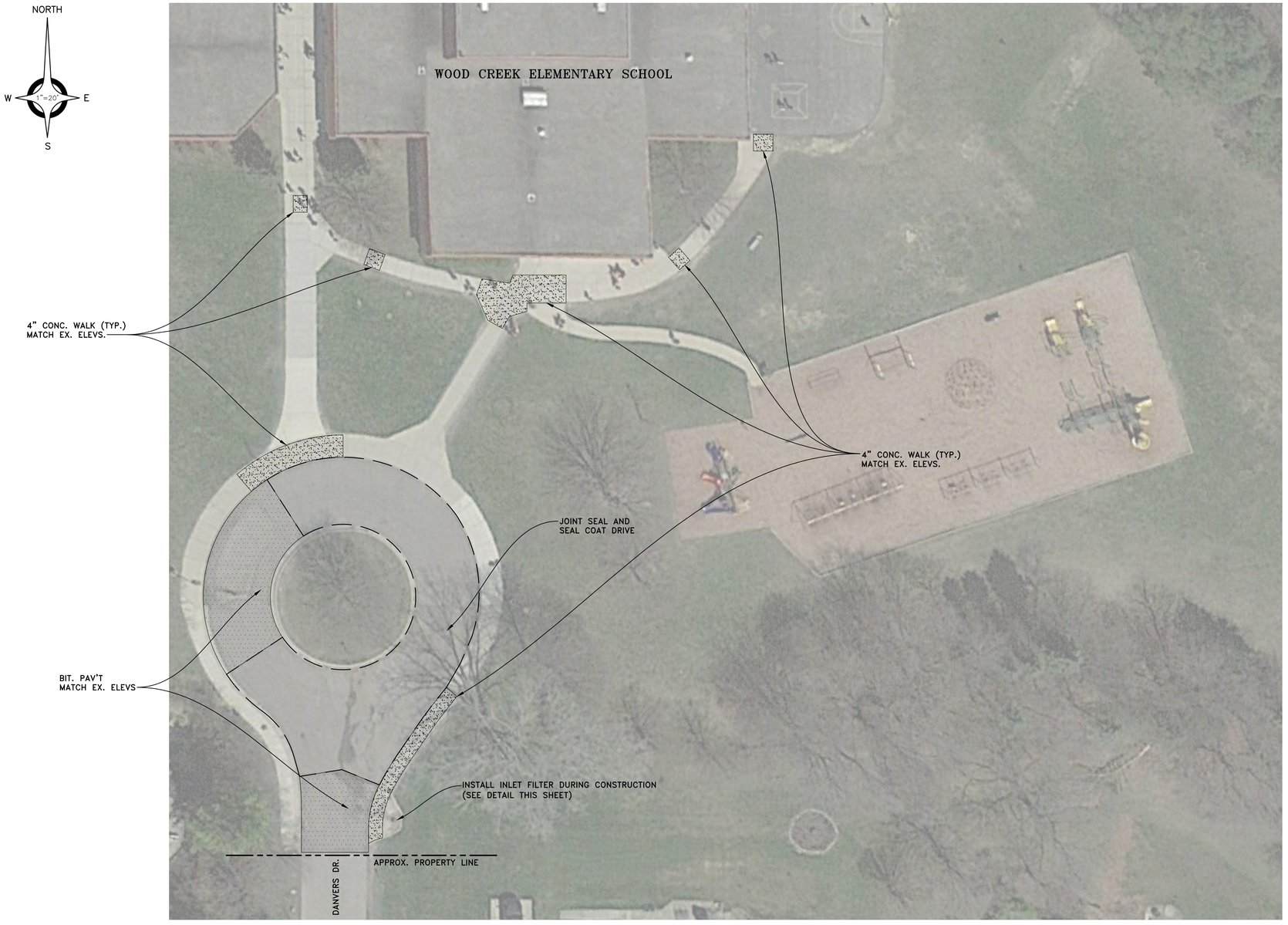
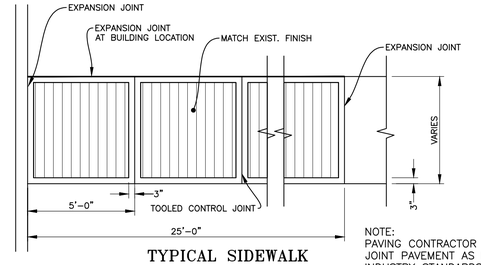
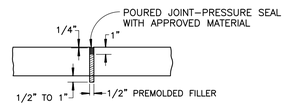




TYPICAL SIDEWALK JOINTING AND FINISH

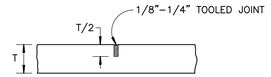
NOT TO SCALE

NOTE:
PAVING CONTRACTOR TO JOINT PAVEMENT AS PER INDUSTRY STANDARDS.



EXPANSION JOINT

NOT TO SCALE



CONTRACTION (CONTROL) JOINT

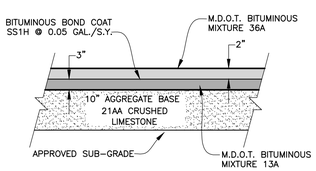
NOT TO SCALE

PAVING LEGEND

- BITUMINOUS PAVEMENT
- 4" CONCRETE SIDEWALK

APPROX. QUANTITIES

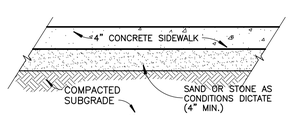
4" CONC WALK	850 SF
CURB-FACE WALK (3' WIDE)	350 SF
BIT. PAV'T	70 TONS
SEAL COAT	550 SY
JOINT SEAL	500 FT



BITUMINOUS PAVEMENT SECTION

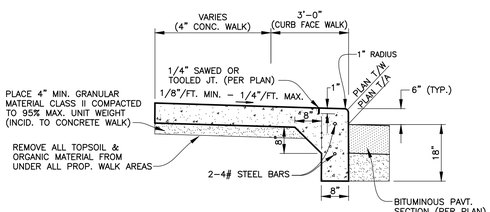
NOT TO SCALE

(STANDARD DUTY)



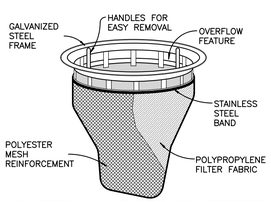
TYPICAL 4" CONCRETE SIDEWALK SECTION

NOT TO SCALE



TYPICAL CONCRETE WALK WITH STANDARD CONCRETE CURB FACE

NOT TO SCALE



CATCH-ALL DROP-IN FILTER

NOT TO SCALE

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

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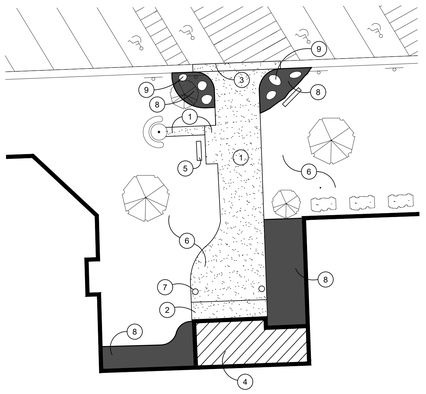
REVISIONS

DATE: November 23, 2016

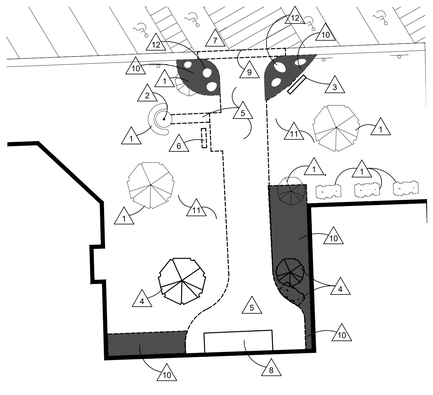
SHEET NO.
C4.0W

JOB NO.
161664B



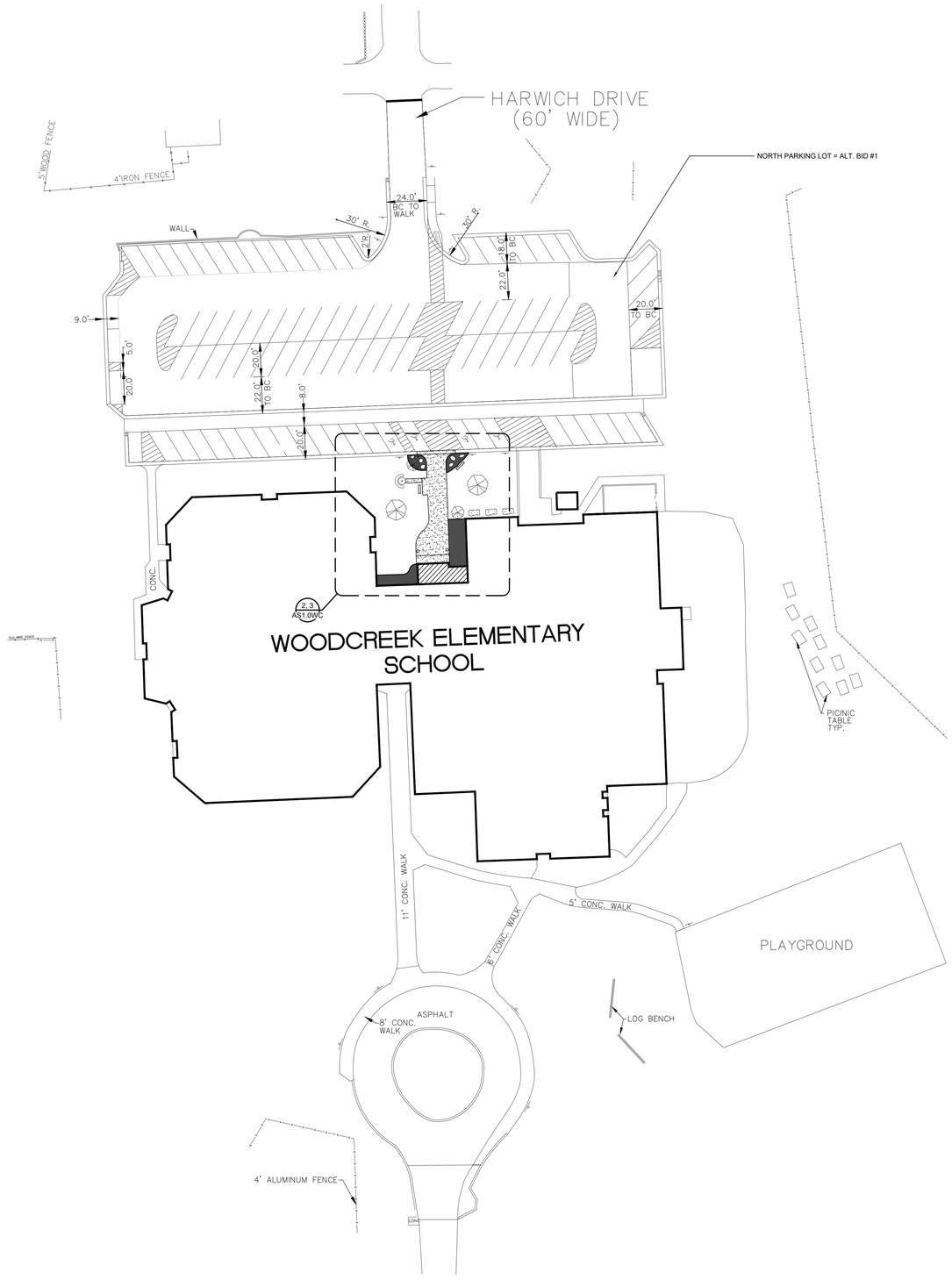
3 AS1.0WC ARCHITECTURAL SITE NEW WORK PLAN

SCALE: 1/16" = 1'-0"



2 AS1.0WC ARCHITECTURAL SITE DEMOLITION PLAN

SCALE: 1/16" = 1'-0"



1 AS1.0WC ARCHITECTURAL SITE PLAN

SCALE: 1/32" = 1'-0"

SITE PLAN DEMOLITION KEY NOTES:

1. EXISTING TREE/SHRUBS TO REMAIN - PROTECT DURING CONSTRUCTION
2. EXISTING FLAGPOLE AND CONCRETE TO REMAIN.
3. EXISTING SIGN TO REMAIN - PROTECT DURING CONSTRUCTION.
4. REMOVE TREE/SHRUB COMPLETE INCLUDING STUMP FULL DEPTH.
5. REMOVE CONCRETE WALK SHOWN DASHED.
6. REMOVE EXISTING WOOD BENCH COMPLETE.
7. EXISTING ASPHALT TO REMAIN. PROTECT DURING CONSTRUCTION.
8. REMOVE EXISTING CONCRETE SUPPORT SLAB FULL DEPTH.
9. REMOVE CONCRETE CURBING COMPLETE.
10. REMOVE EXISTING SHREDDED BARK LANDSCAPING DURING CONSTRUCTION.
11. EXISTING GRASS AREA.
12. REMOVE 3 LARGE STONES AND SALVAGE FOR REINSTALLATION.

SITE PLAN NEW WORK KEY NOTES:

1. NEW 4" CONCRETE WALK-ON MIN. 6" COMP. FILL IN SAME DEPTH AS REMOVED CONCRETE WALK. SLOPE TO DRAIN. MATCH ADJACENT ELEVATIONS (V.I.F.)
2. NEW CONC. SUPPORTED SLAB FULL WIDTH OF ADDITION. SEE DETAILS.
3. NEW CONCRETE CURBING TO MATCH ADJACENT PROFILE, DEPTH, ETC. (V.I.F.)
4. NEW ADDITION - SEE PLANS.
5. NEW BENCH - BOLT TO NEW CONCRETE.
6. RESTORE CONSTRUCTION AREA WITH NEW TOPSOIL, SEED, ETC. UPON COMPLETION. SEE SPEC'S. SLOPE TO DRAIN.
7. NEW COLUMN SUPPORTS FOR OVERHANG. (TYP. OF 2). SEE DETAILS.
8. PROVIDE NEW 4" DEEP SHREDDED BARK ON WOOD BARRIER FRABRIC WITH METALK EDGING TO OUTLINE AREA.
9. RE-INSTALL 3 LARGE STONES SALVAGED DURING CONSTRUCTION.

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SHEET NO.

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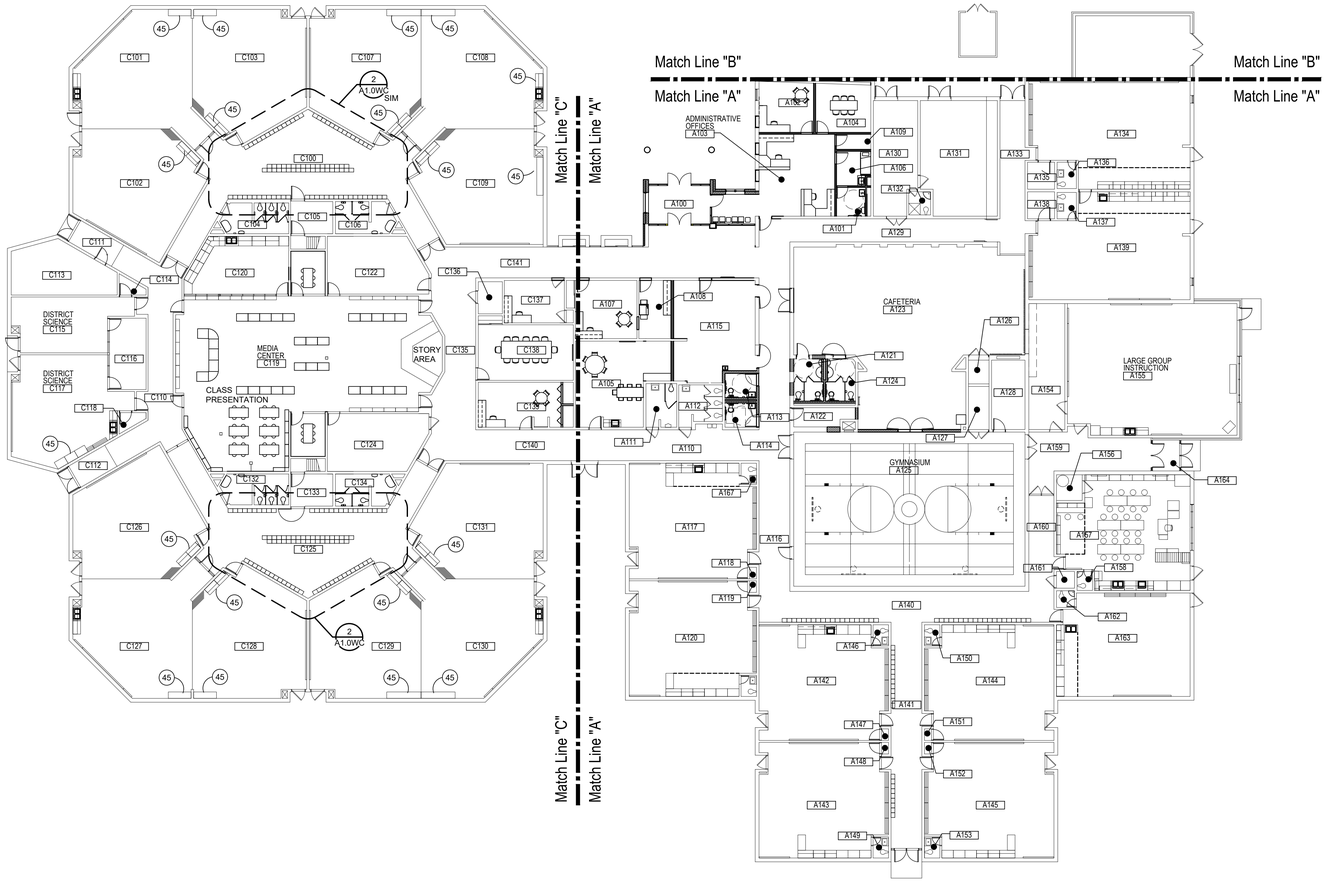
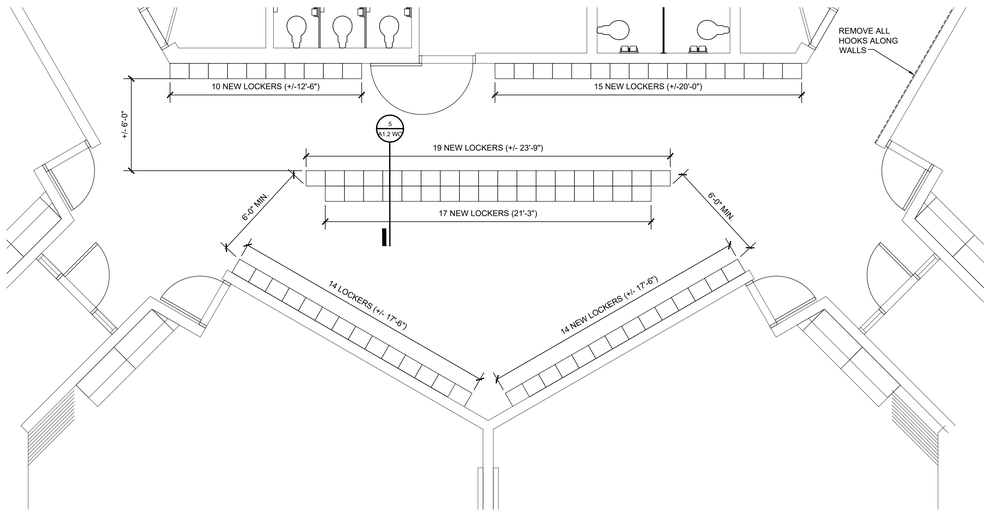


COMPOSITE FIRST FLOOR PLAN

1 – N

SCALE: 1/16" = 1'-0"



ENLARGED LOCKER PLAN

2 A1.0WC

SCALE: 1/4" = 1'-0"

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A1.0WC

JOB NO. 161664B

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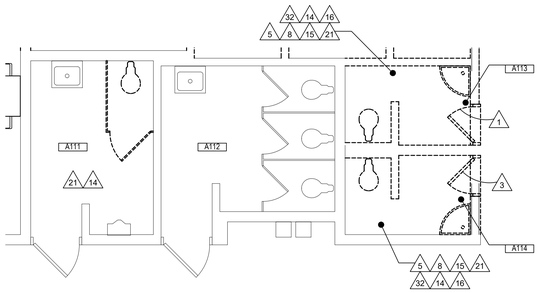
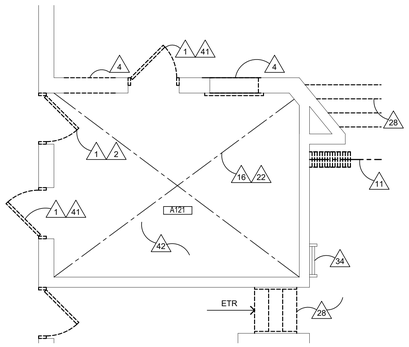
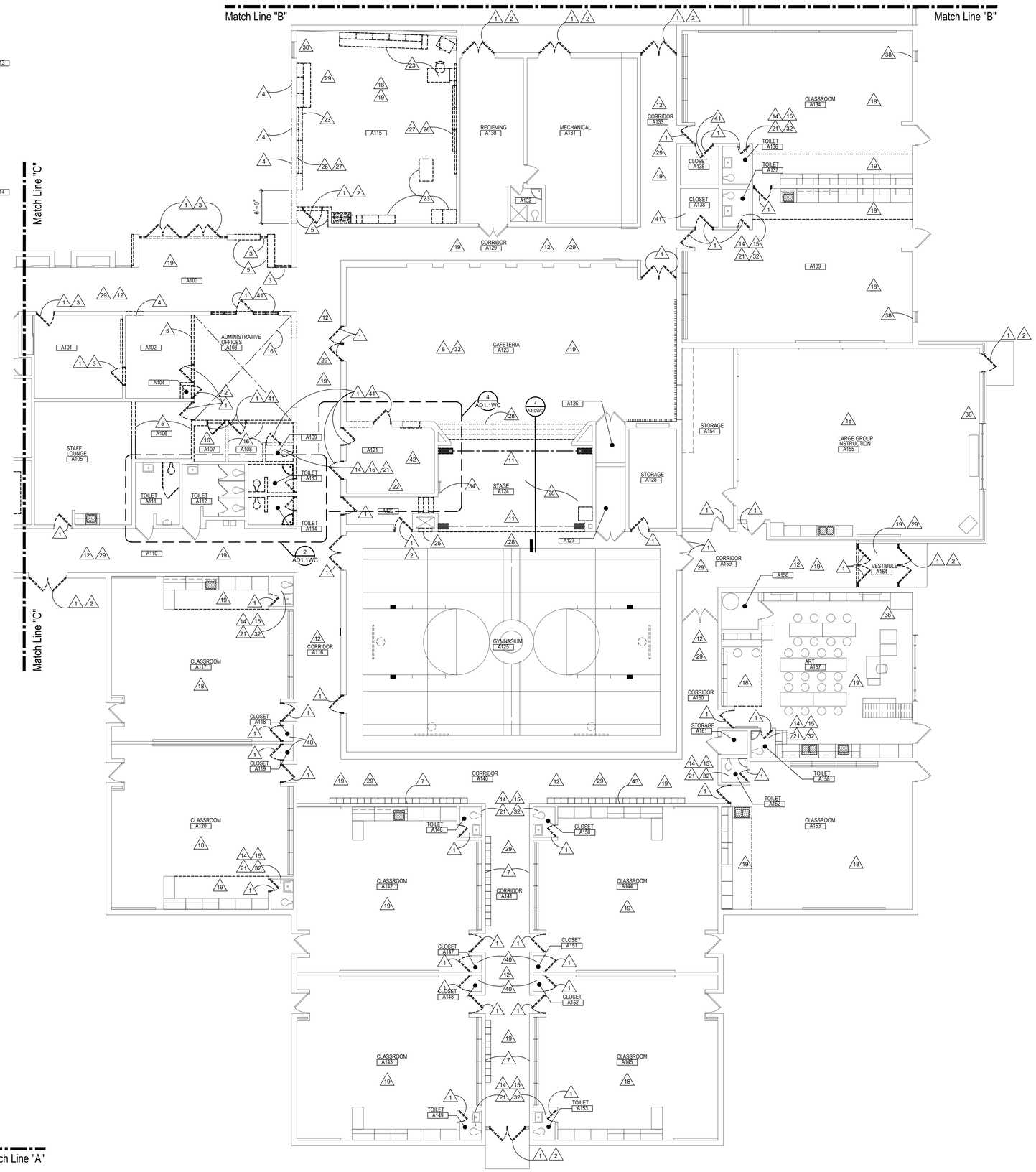


3 AD1.1WC ENLARGED BATHROOM PLANS
SCALE: 1/4" = 1'-0"



4 AD1.1WC ENLARGED BATHROOM PLANS
SCALE: 1/4" = 1'-0"



2 A1.0WC AREA "B" DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

1 A1.0WC AREA "A" DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

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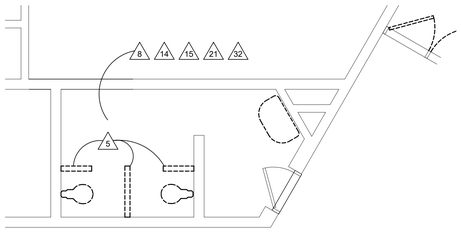

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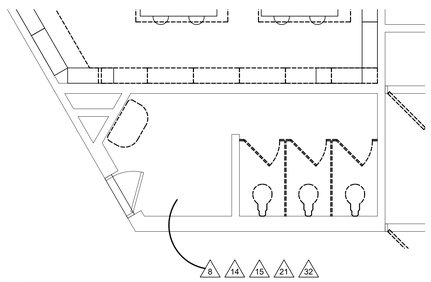
2 AD1.2WC ENLARGED BATHROOM PLAN C132

SCALE: 1/4" = 1'-0"



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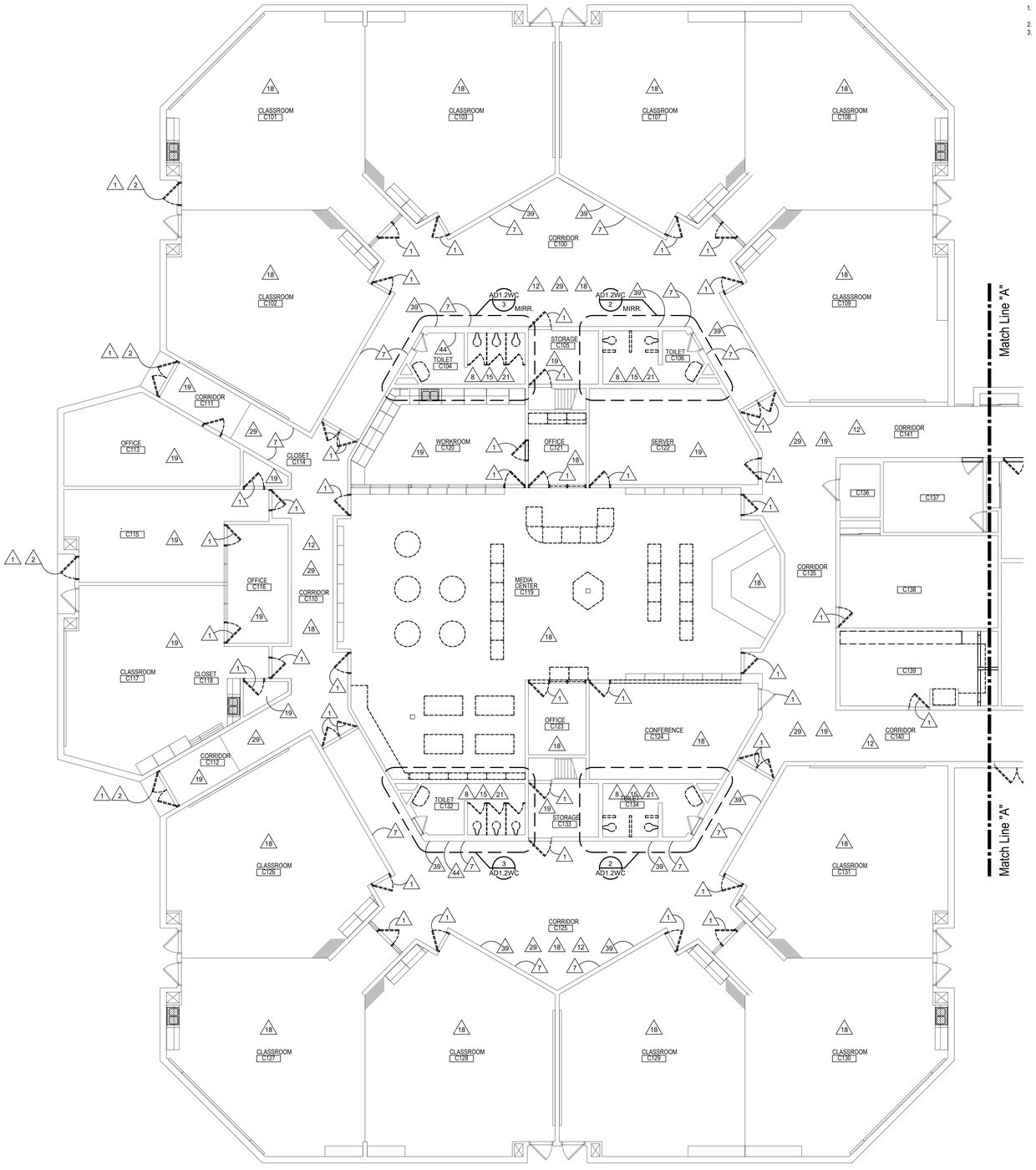
3 AD1.2WC ENLARGED BATHROOM PLAN C134

SCALE: 1/4" = 1'-0"



N

1 A1.0WC AREA "C" DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

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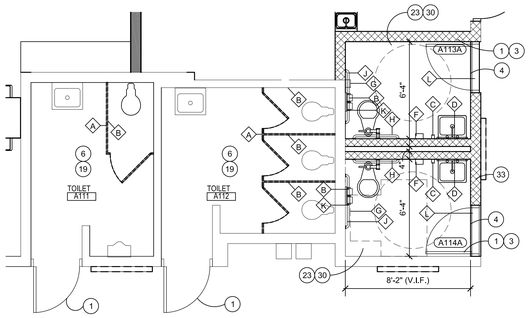
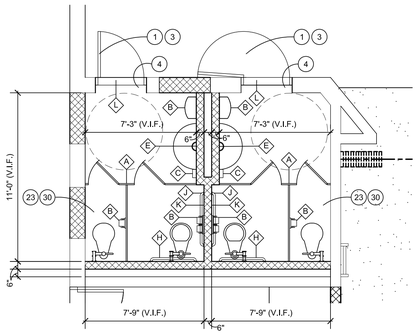
AD1.2WC

JOB NO. 161664B



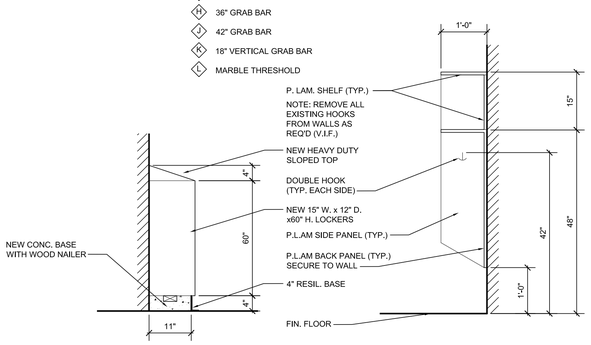
3 A1.1WC ENLARGED BATHROOM PLANS
SCALE: 1/4" = 1'-0"



4 A1.1WC ENLARGED BATHROOM PLANS
SCALE: 1/4" = 1'-0"

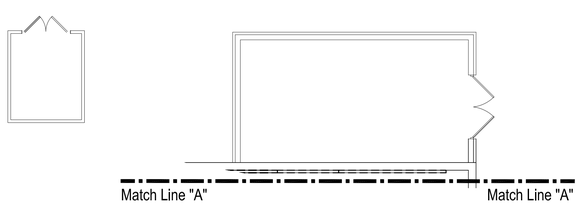
TOILET ACCESSORY LEGEND:

- A TOILET PARTITION
- B TOILET PAPER HOLDER (BY OWNER)
- C SOAP DISPENSOR (BY OWNER)
- D 24"X36" MIRROR
- E 36"X36" MIRROR
- F PAPER TOWEL DISPENSER (BY OWNER)
- G SANITARY NAPKIN DISPOSAL
- H 36" GRAB BAR
- J 42" GRAB BAR
- K 18" VERTICAL GRAB BAR
- L MARBLE THRESHOLD

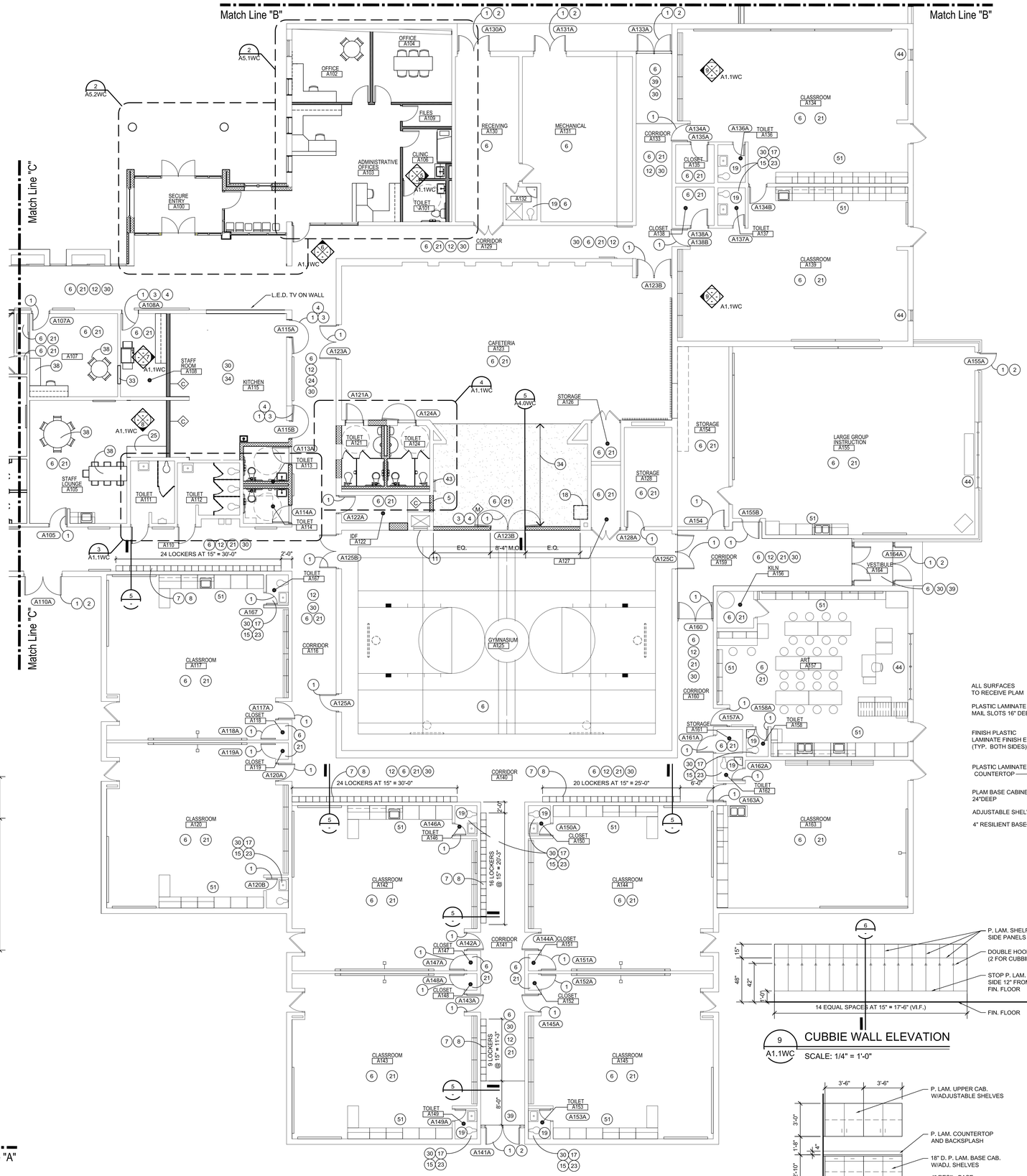


5 LOCKER DETAIL
SCALE: 3/4" = 1'-0"

6 CUBBIE SECTION
SCALE: 3/4" = 1'-0"



2 A1.0WC AREA "B" NEW WORK PLAN
SCALE: 1/8" = 1'-0"



1 A1.0WC AREA "A" NEW WORK PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET G4.1 FOR TYPICAL NOTES, SYMBOLS, GENERAL INFORMATION, AND ABBREVIATIONS.
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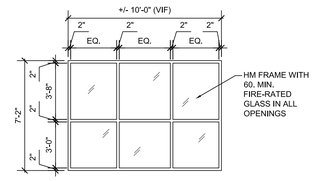
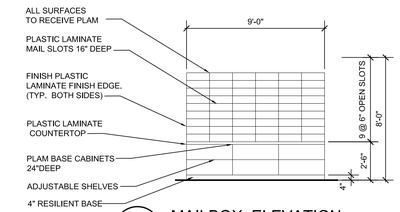
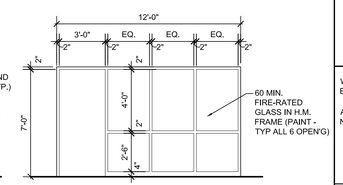


10 A5.2WC FRAME ELEVATION
SCALE: 1/4" = 1'-0"

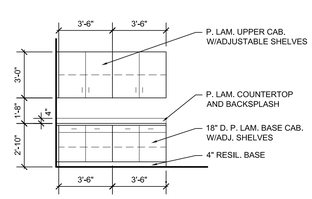


7 A1.1WC MAILBOX ELEVATION
SCALE: 1/4" = 1'-0"

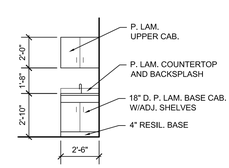
9 A1.1WC CUBBIE WALL ELEVATION
SCALE: 1/4" = 1'-0"



6 A1.1WC FRAME ELEVATION
SCALE: 1/4" = 1'-0"



8 A1.1WC CASEWORK ELEVATION
SCALE: 1/4" = 1'-0"



5 A1.1WC INTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

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DATE: November 30, 2016

SHEET NO.

A1.1WC

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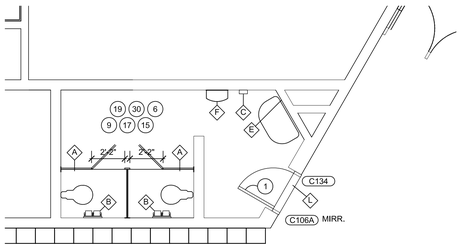
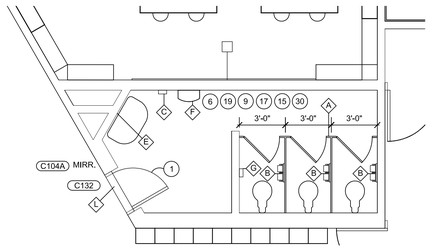


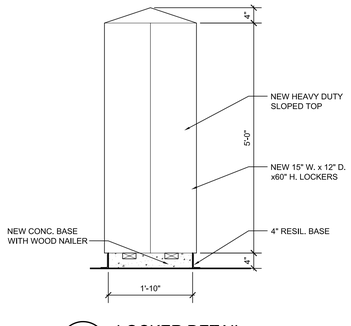
2 A1.2WC ENLARGED BATHROOM PLAN C134 (C106 MIRROR)
SCALE: 1/4" = 1'-0"



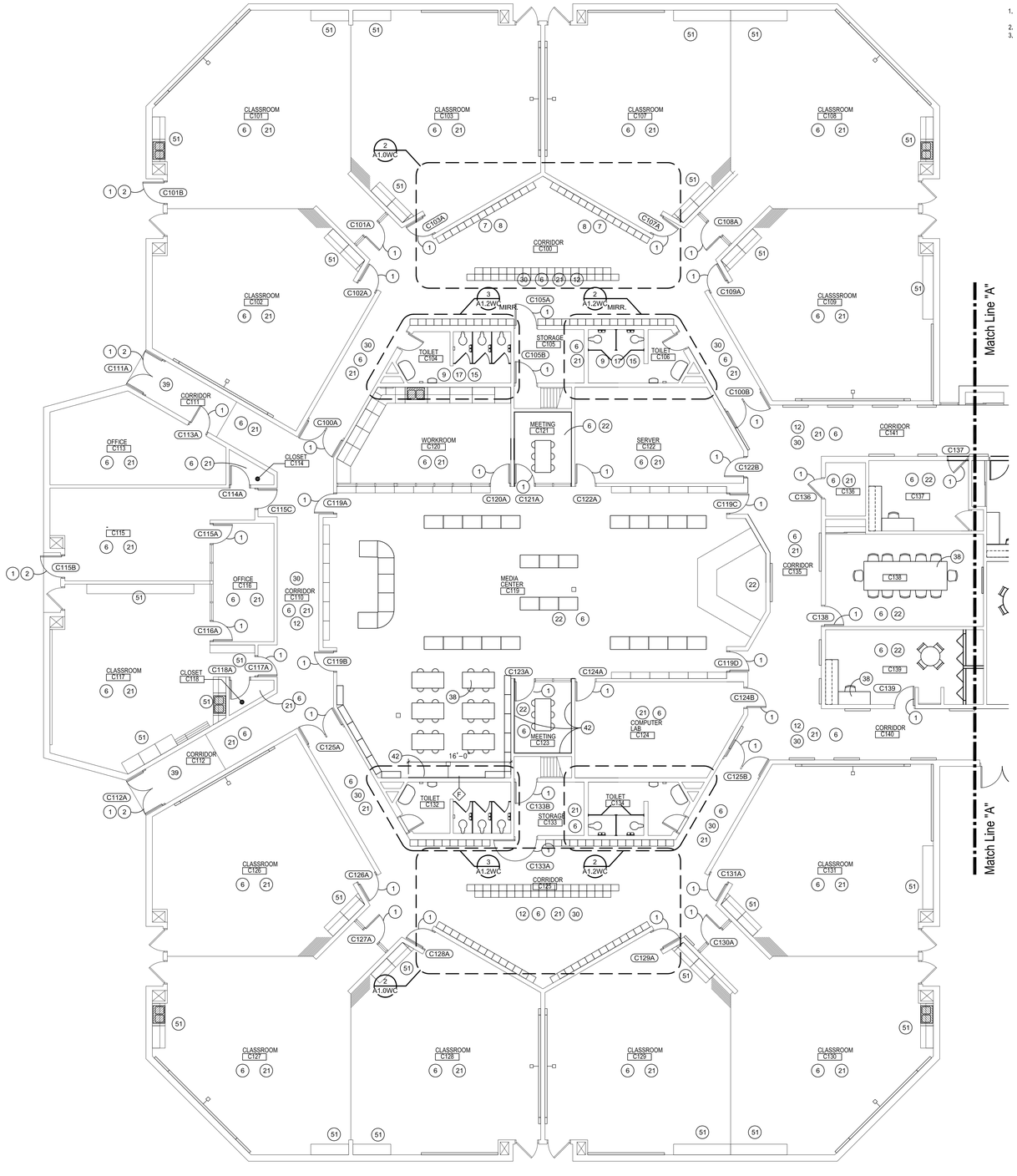
3 A1.2WC ENLARGED BATHROOM PLAN C132 (C104 MIRROR)
SCALE: 1/4" = 1'-0"

TOILET ACCESSORY LEGEND:

- A — TOILET PARTITION
- B — TOILET PAPER HOLDER (BY OWNER)
- C — SOAP DISPENSOR (BY OWNER)
- D — 24"X36" MIRROR
- E — 36"X36" MIRROR
- F — PAPER TOWEL DISPENSER (BY OWNER)
- G — SANITARY NAPKIN DISPOSAL
- H — 36" GRAB BAR
- J — 42" GRAB BAR
- K — 18" VERTICAL GRAB BAR
- MARBLE THRESHOLD
- URINAL SCREEN



5 LOCKER DETAIL
SCALE: 3/4" = 1'-0"



1 A1.0WC AREA "C" NEW WORK PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

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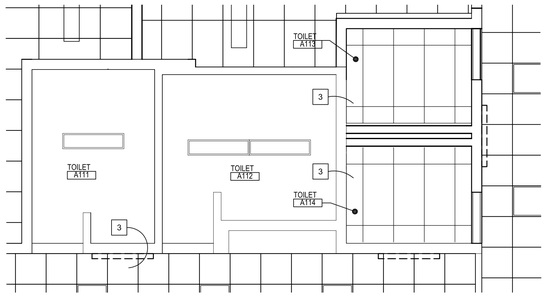
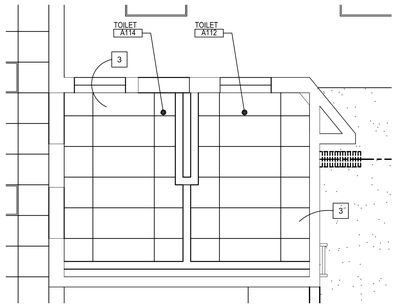
A1.2WC

JOB NO. 161664B



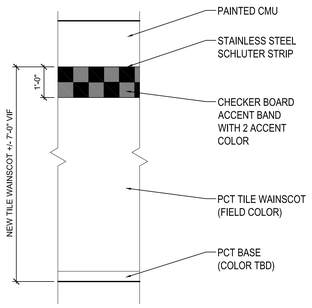
3 A2.1WC — ENLARGED BATHROOM PLANS

SCALE: 1/4" = 1'-0"



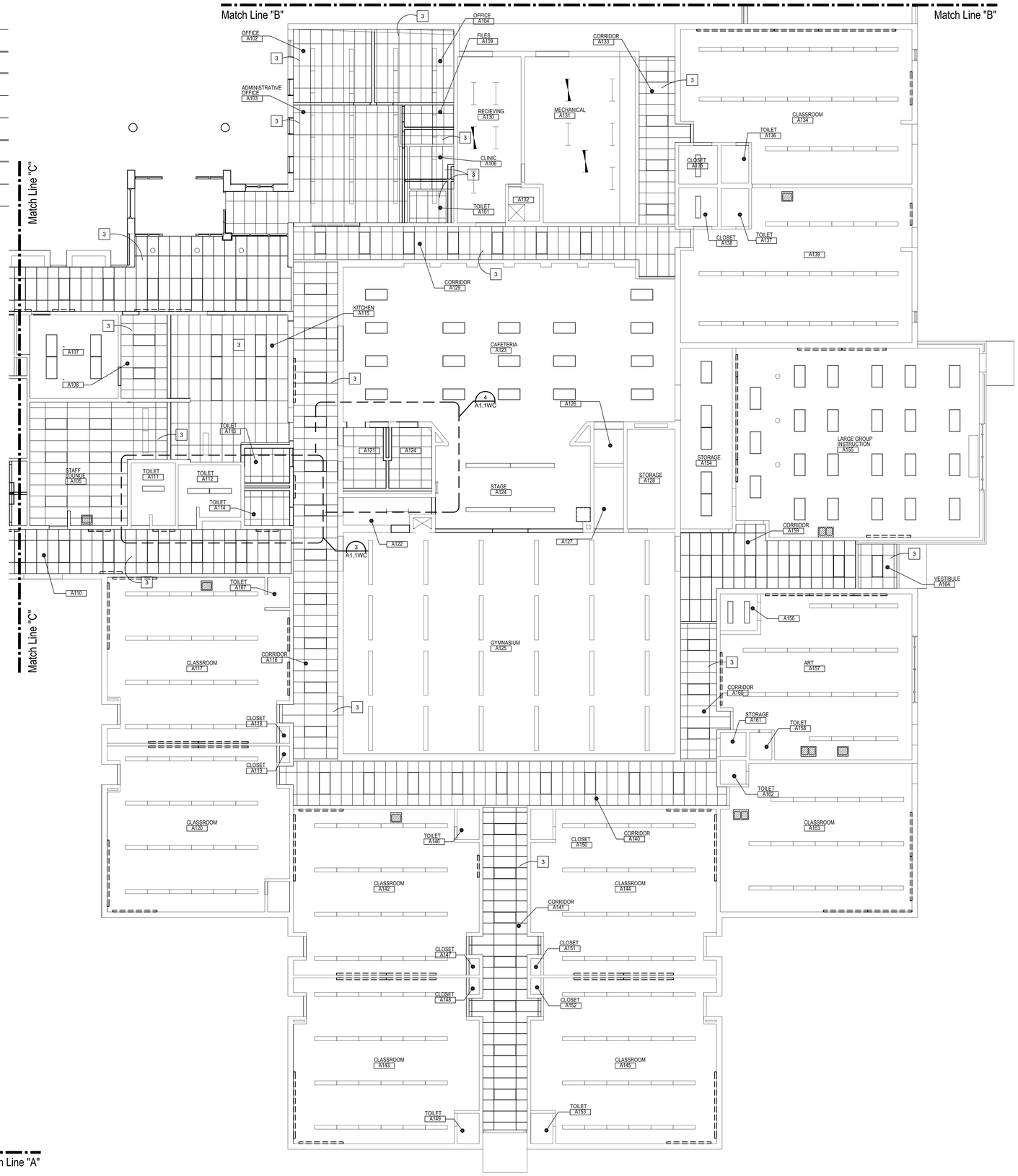
4 A2.1WC — ENLARGED BATHROOM PLANS

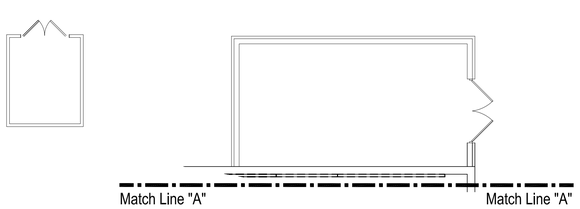
SCALE: 1/4" = 1'-0"



5 A2.1D — BATHROOM WALL ELEVATION TYP.

SCALE: 1/2" = 1'-0"





2 A1.0WC — AREA "B" REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

1 A1.0WC — AREA "A" REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET G4.1 FOR TYPICAL NOTES, SYMBOLS, GENERAL INFORMATION, AND ABBREVIATIONS.
2. REFER TO SHEET G4.2 FOR REFERENCED KEYNOTES.
3. REMOVE EXISTING WALL SIGNAGE. PATCH AND PREP FOR NEW SIGNAGE. INSTALL NEW SIGNAGE.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND

2017 RENOVATIONS

ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY SCHOOL

AREA "A" & AREA "B" REFLECTED CEILING PLANS

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY NJL
CHECKED BY BJS

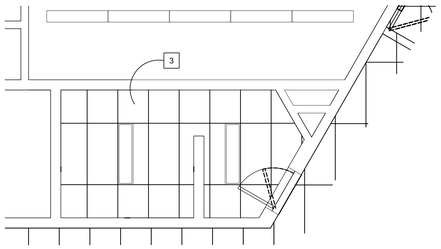
REVISIONS

DATE: November 30, 2016

SHEET NO.

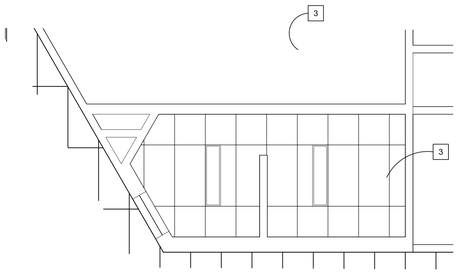
A2.1WC

JOB NO. 161664B



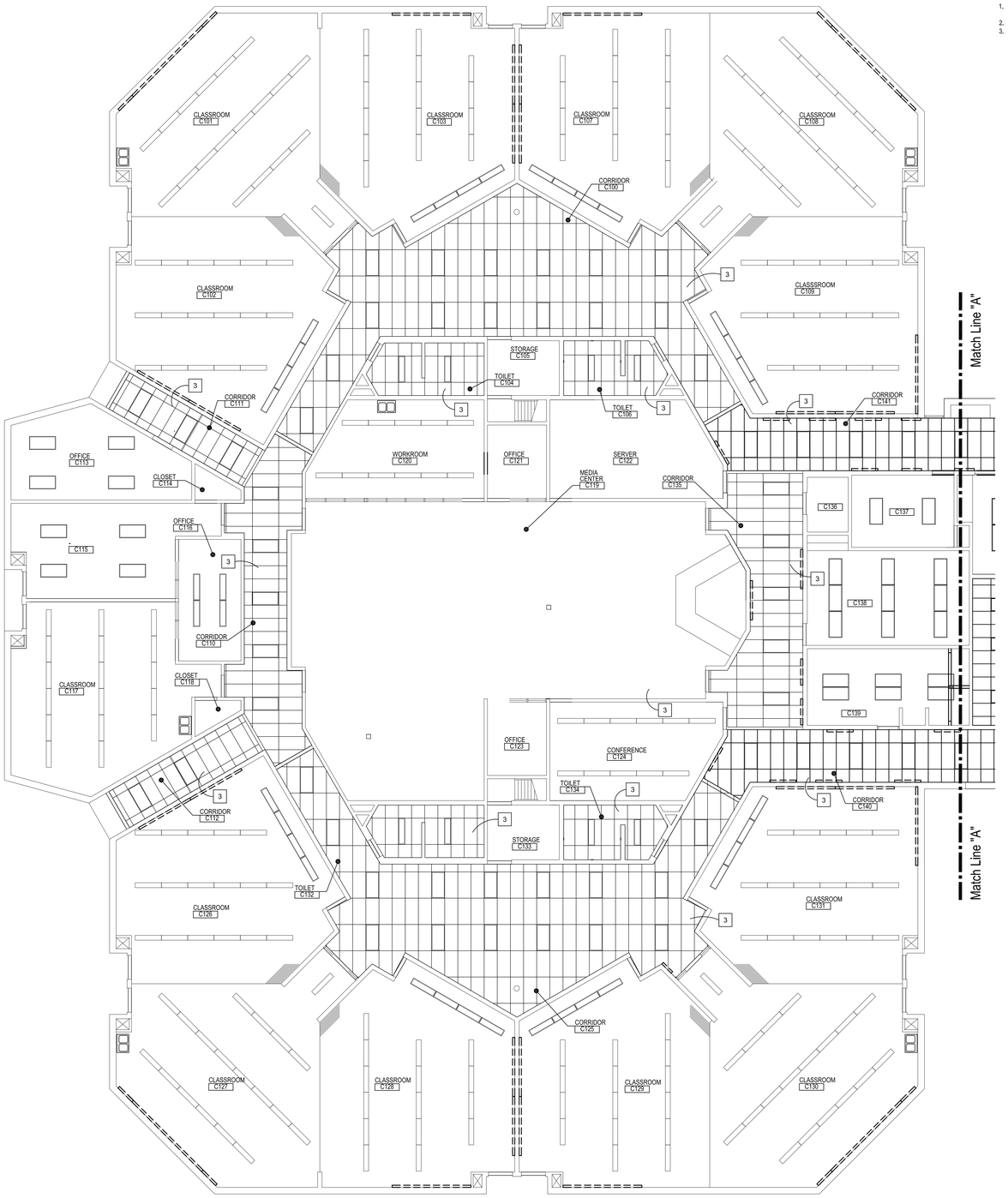
2 A1.2WC ENLARGED BATHROOM PLAN C134

SCALE: 1/4" = 1'-0"



3 A1.2WC ENLARGED BATHROOM PLAN C132

SCALE: 1/4" = 1'-0"



1 A1.0WC AREA "C" REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

N

GENERAL NOTES:

1. REFER TO SHEET G4.1 FOR TYPICAL NOTES, SYMBOLS, GENERAL INFORMATION, AND ABBREVIATIONS.
2. REFER TO SHEET G4.2 FOR REFERENCED KEYNOTES.
3. REMOVE EXISTING WALL SIGNAGE, PATCH AND PREP FOR NEW SIGNAGE. INSTALL NEW SIGNAGE.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK
ELEMENTARY SCHOOL

AREA "C"
REFLECTED CEILING PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

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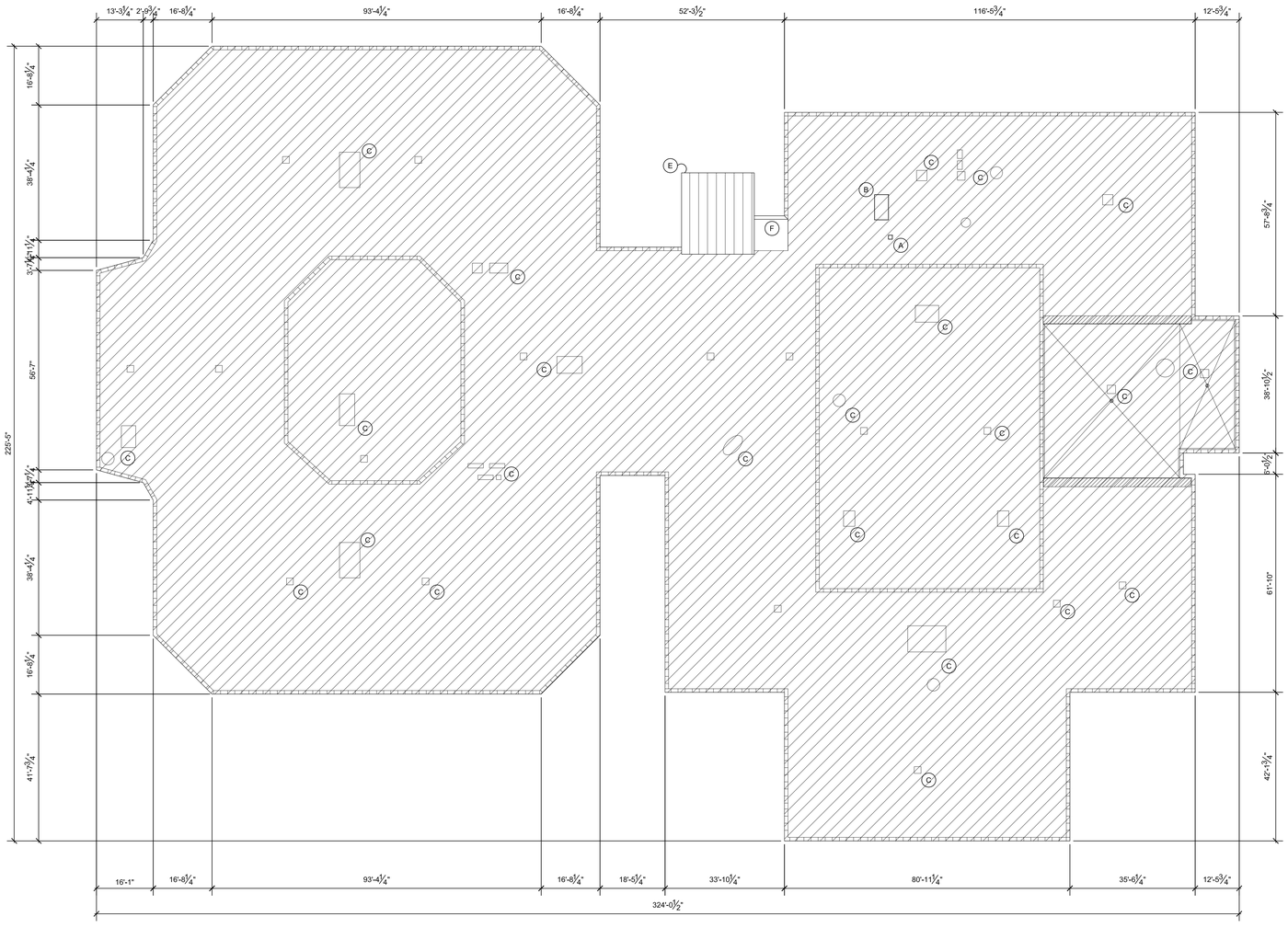
SHEET NO.

A2.2WC

JOB NO. 161664B



1 ROOF PLAN

SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET G4.1 FOR TYPICAL NOTES, SYMBOLS, GENERAL INFORMATION, AND ABBREVIATIONS.
2. REFER TO SHEET G4.2 FOR REFERENCED KEYNOTES.

ROOF PLAN GENERAL NOTES:

1. VERIFY ALL DIMENSIONS IN FIELD AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. VERIFY QUANTITY, SIZE AND LOCATION OF ALL EXISTING ROOF TOP EQUIPMENT, CURBS, FANS, VENTS, ROOF SUMPS, ETC. IN FIELD, PRIOR TO BIDDING. (NOT ALL EXISTING ROOF MOUNTED ITEMS ARE SHOWN ON ROOF PLAN)

ROOF PLAN LEGEND:

NEW SINGLE PLY ROOF MEMBRANE ON NEW 1" BOARD OVER EXISTING BUILT-UP ROOF SYSTEM (REMOVE BALLAST) PROVIDE NEW METAL COPING ALONG ENTIRE PERIMETER OF ROOF

REMOVE EXISTING ROOF SYSTEM & WET INSULATION DOWN TO ROOF DECK & INSTALL NEW RIGID INSULATION (MATCH EXISTING THICKNESS +/-4" VIF) AND SINGLE PLY MEMBRANE ROOF SYSTEM - SEE SPEC.

NOTE: LOCATIONS SHOWN ARE APPROXIMATE AND CONTRACTOR MUST VERIFY EXTENT OF WET INSULATION IN FIELD.

DIRECTION OF SLOPE (VERIFY IN FIELD)

ROOF SUMP LOCATION (VERIFY LOCATION IN FIELD)

ROOF PLAN NOTES:

(A) NEW EXHAUST FAN OR ROOF TOP AHU (SEE MECH DRAWINGS). PROVIDE NEW STEEL ANGLE STRUCTURAL FRAMING BELOW AS REQ'D. AT LOCATIONS WITH EXISTING ROOFING MATERIAL TO REMAIN. CUT AND PATCH EXISTING ROOFING AS REQ'D PROVIDE NEW FLASHING, SUPPORT CURBS, & NEW STRUCTURAL STEEL ANGLE ROOF FRAMING AS REQUIRED FOR WATER TIGHT INSTALLATION - REFER TO DETAIL 11 ON A3.1WC

(B) NEW ROOF TOP UNIT (SEE MECHANICAL DWGS). PROVIDE NEW STRUCTURAL STEEL ANGLE FRAMING BELOW AS REQ'D AT LOCATIONS WITH EXISTING ROOFING MATERIAL TO REMAIN. CUT & PATCH EXISTING ROOFING AS REQ'D PROVIDE NEW FLASHING, SUPPORT CURBS & NEW STRUCTURAL STEEL ANGLE ROOF FRAMING AS REQ'D FOR WATERTIGHT INSTALLATION - REFER TO DETAIL 11 ON A3.1WC

(C) EXISTING MECHANICAL UNIT - FLASH AROUND EXISTING CURB/ SUPPORTS WATER TIGHT AS REQ'D. REFER TO TYPICAL DETAILS

(D) EXISTING METAL ROOFING TO REMAIN (NO WORK)

(E) NEW STANDING SEAM METAL ROOF

(F) NEW METAL MANSARD ROOF TO MATCH EXISTING PROFILE & COLOR OF EXISTING BUILDING

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2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK
ELEMENTARY SCHOOL

ROOF PLAN

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DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

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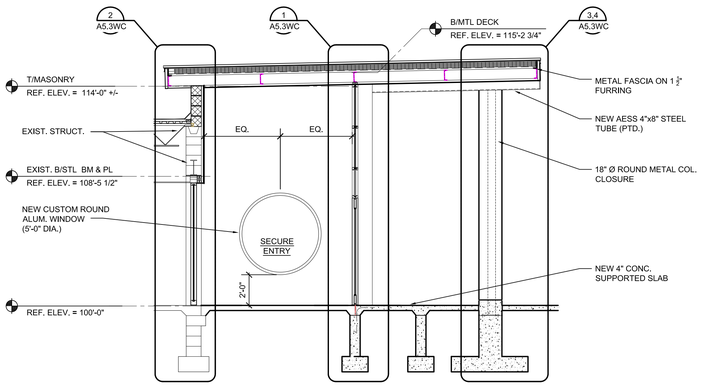
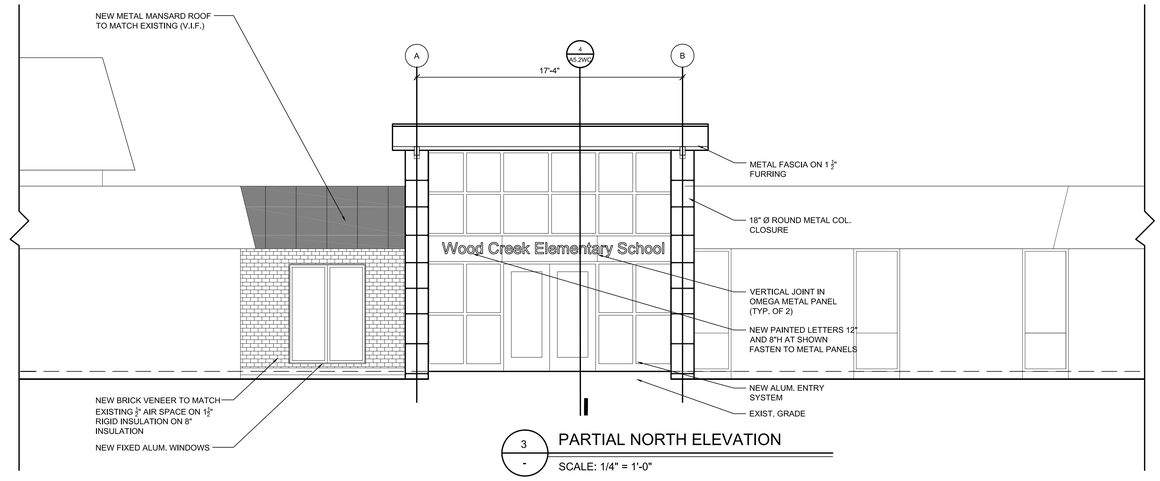
A3.0WC

JOB NO. 161664B



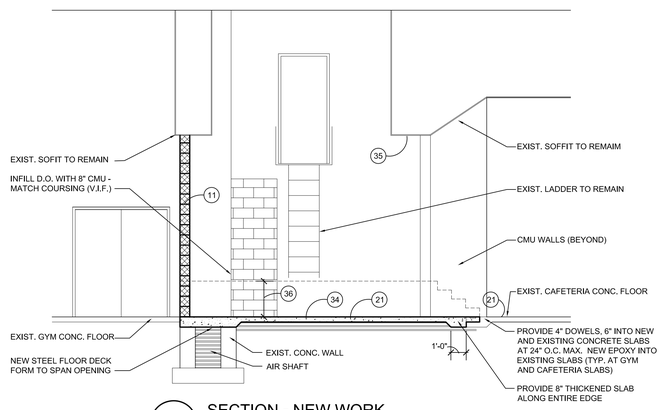
6 / A5.2WC BUILDING SECTION

SCALE: 1/4" = 1'-0"



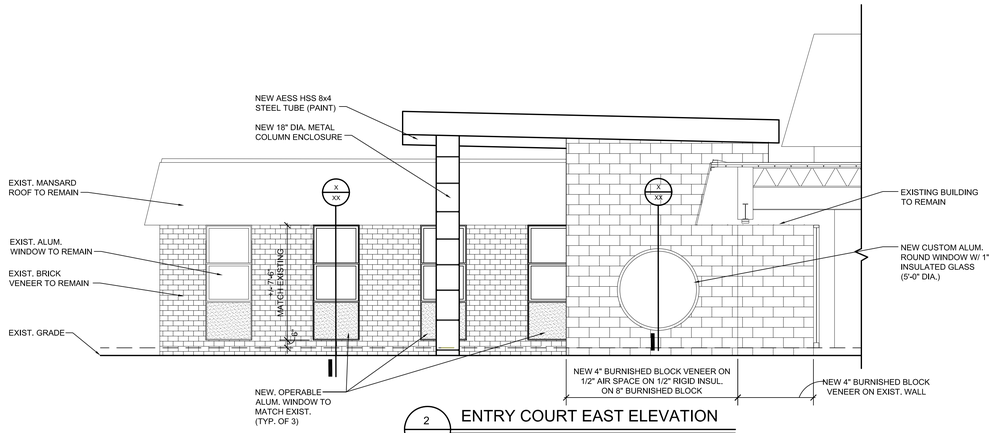
3 / - PARTIAL NORTH ELEVATION

SCALE: 1/4" = 1'-0"



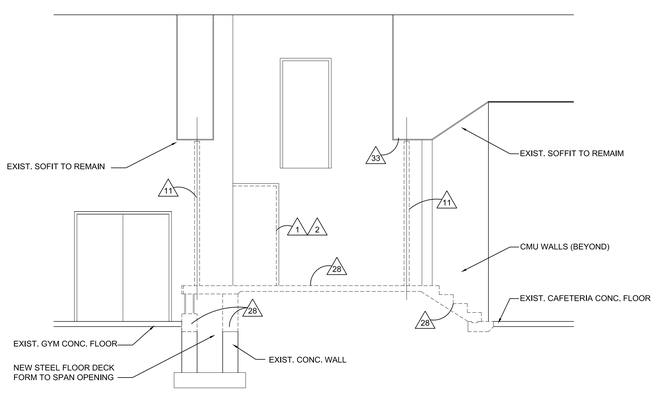
5 / - SECTION - NEW WORK

SCALE: 1/4" = 1'-0"



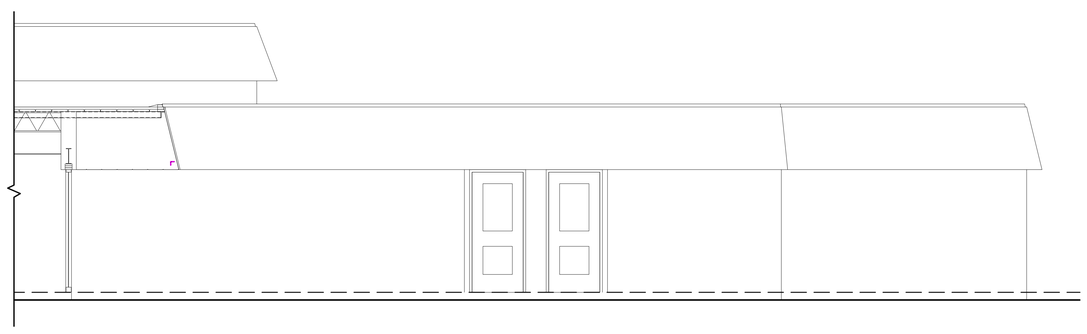
2 / - ENTRY COURT EAST ELEVATION

SCALE: 1/4" = 1'-0"



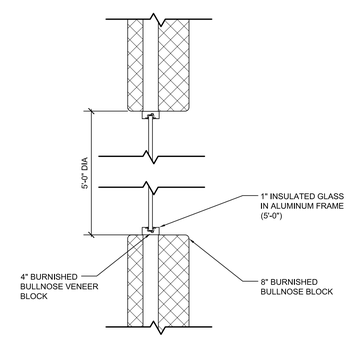
4 / - SECTION - DEMOLITION

SCALE: 1/4" = 1'-0"



1 / - ENTRY COURT WEST ELEVATION

SCALE: 1/4" = 1'-0"



7 / A4.0WC DETAIL @ ROUND WINDOW

SCALE: 3/4" = 1'-0"

WA

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND

2017 RENOVATIONS

ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY SCHOOL

BUILDING ELEVATIONS

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A4.0WC

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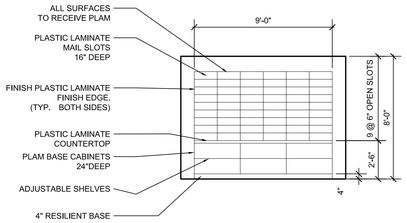
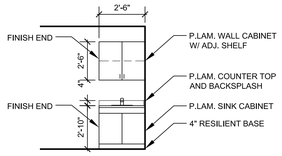


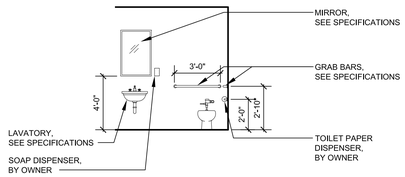
3 A5.2WC INTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



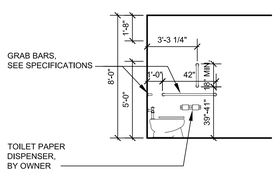
4 A5.2WC INTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



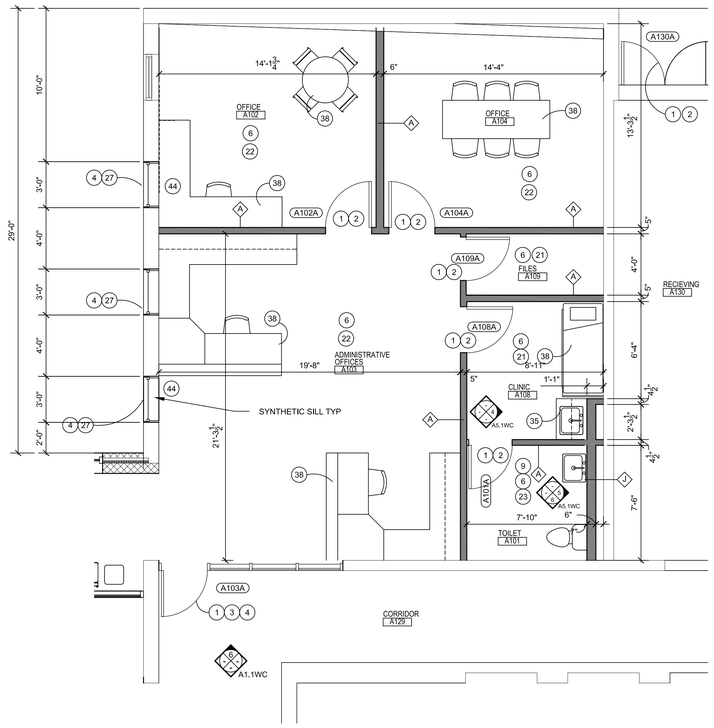
5 A5.2WC INTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



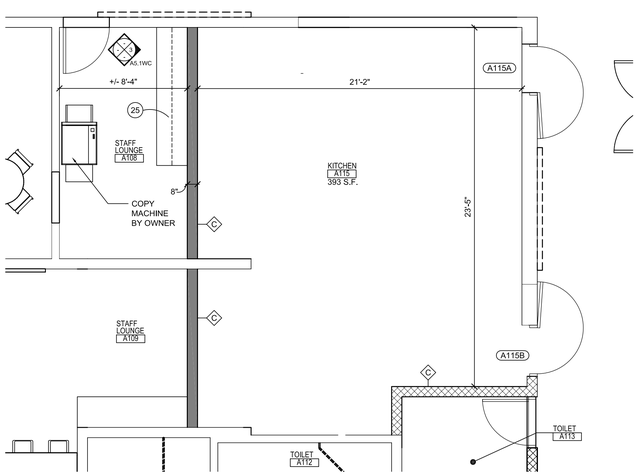
6 A5.2WC INTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



2 A1.1WC ENLARGED ADMINISTRATIVE OFFICES PLAN

SCALE: 1/4" = 1'-0"



1 A1.1WC ENLARGED KITCHEN PLAN

SCALE: 1/4" = 1'-0"

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ENLARGED KITCHEN PLAN

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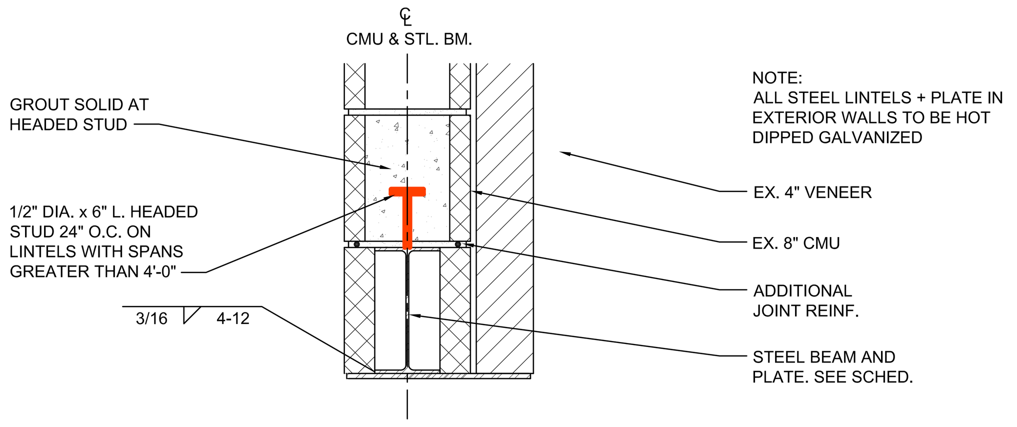
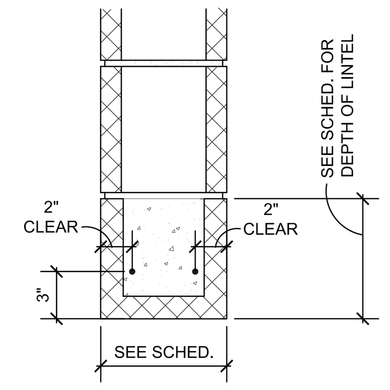
A5.1WC

JOB NO. 161664B



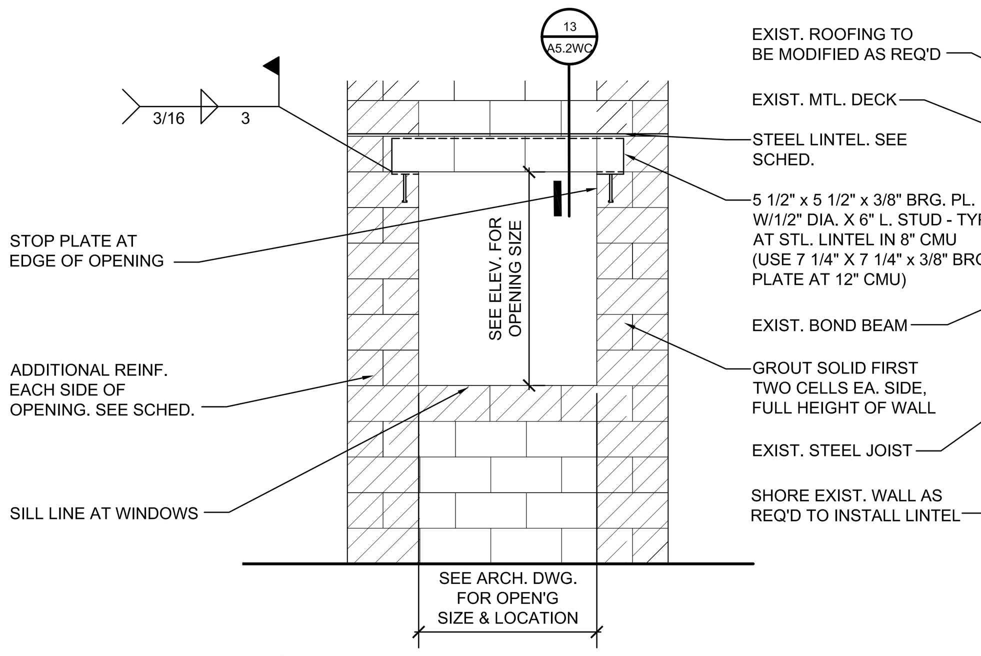
13 A5.2WC **TYP. STL. LINTEL DETAIL**

SCALE: 1 1/2" = 1'-0"



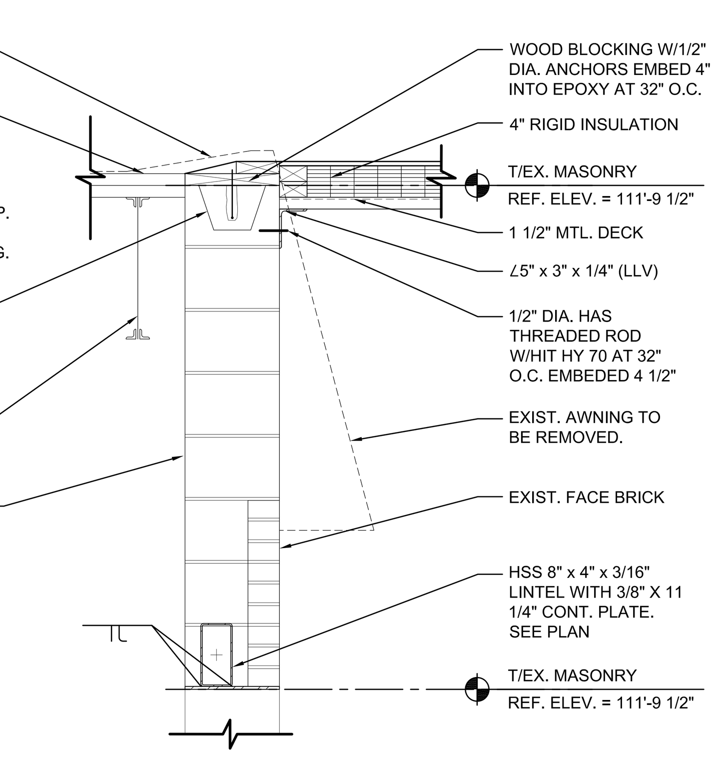
14 A5.2WC **TYP. MASONRY LINTEL DETAIL**

SCALE: 1 1/2" = 1'-0"



12 A5.2WC **TYP. MASONRY OPENING DTL.**

SCALE: 3/4" = 1'-0"



8 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"

FOOTING SCHEDULE

FOOTING MARK	FOOTING SIZE WIDTH x THICKNESS x LENGTH	REINFORCEMENT	TOP OF FTG. ELEV	REMARKS
F1	5'-0" x 5'-0" x 1'-0"	(5) #5'S EA.WAY T&B	96'-8"	-
F2	2'-0" x CONT. x 1'-0"	(2) #5'S CONT.	96'-8"	-
F3	1'-4" x CONT. x 1'-0"	(2) #5'S CONT.	96'-8"	STOOP

BEARING PLATE SCHEDULE

MARK	SIZE	ANCHORS	REMARKS
BP1	$\frac{3}{8}$"x5$\frac{1}{2}$"x5$\frac{1}{2}$"	(1) $\frac{1}{2}$"Ø HD. STUDS 3" LONG	-
BP2	$\frac{3}{8}$"x5$\frac{1}{2}$"x1'-0"	(2) $\frac{1}{2}$"Ø HD. STUDS 3" LONG	-
BP3	$\frac{3}{8}$"x5$\frac{1}{2}$"x1'-0"	(2) $\frac{1}{2}$"Ø HHS. ROD EMBED. 4$\frac{1}{2}$" IN HILTI HY70 EPOXY	ANCHOR TO EX. BOND BEAM

MASONRY WALL REINFORCEMENT SCHEDULE

MARK	SIZE	BASE PLATE
W1	#5 BARS @ 48" O.C.	PROVIDE ADDITIONAL REINF. @ OPENING SEE TYP. OPENING DETAILS

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	ANCHORS	CAP PLATE	REMARKS
C1	HSS6x6x$\frac{1}{4}$	1'-0"x1'-0"x1"	(4) $\frac{3}{4}$"Ø EMBED 20"	$\frac{3}{4}$"x10"x10"	-
C2	HSS4x2x1/4	$\frac{3}{4}$"x6"x8"	(2) $\frac{1}{2}$"Ø HHS RODS EMBED. 4$\frac{1}{2}$" IN HILTI HY70 EPOXY	-	WELD TOP TO L4 LINTEL

PIER SCHEDULE

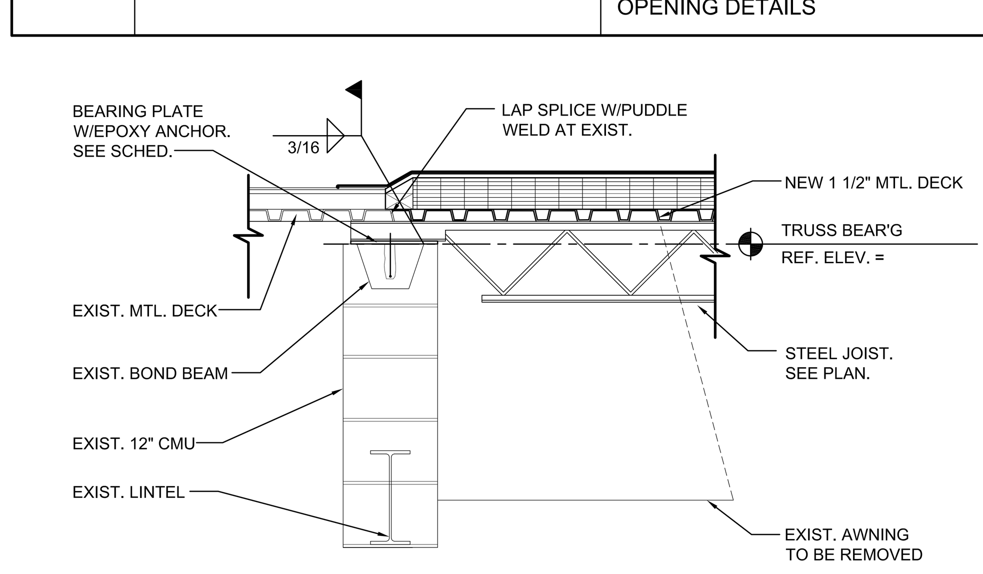
FOOTING MARK	PIER SIZE WIDTH x LENGTH	REINFORCEMENT	TOP OF PIER. ELEV	REMARKS
P1	1'-8"Ø	(8) #5 BARS & #4 TIES	102'-0"	SEE DETAIL 2/5X
-	-	-	-	-

LINTEL SCHEDULE

MARK	LINTEL TYPE	PLATE SIZE	REMARKS
L1	HSS8x4x$\frac{3}{16}$"	$\frac{3}{8}$" x 1'-2$\frac{3}{4}$" x OPENING	-
L2	W8x18	$\frac{3}{8}$" x 7 $\frac{3}{8}$" x OPENING	-
L3	HSS8x4x$\frac{3}{16}$"	$\frac{3}{8}$" x 11 $\frac{3}{8}$" x OPENING	-
L4	MASONRY (2) #4'S	8" DEEP BOND BEAM	CMU LINTEL

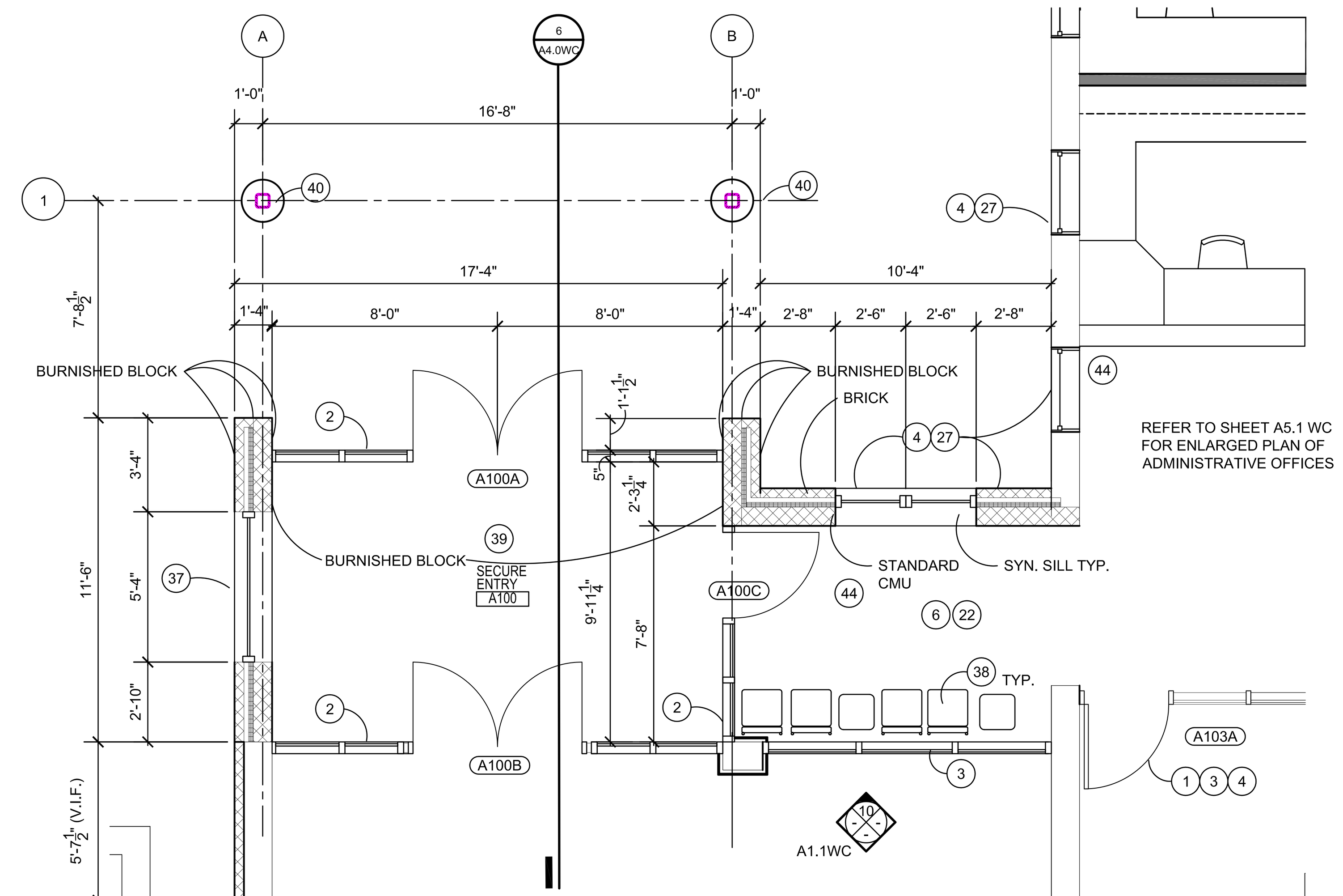
NOTE:

1. PROVIDE $\frac{3}{8}$"x5$\frac{1}{2}$"x5$\frac{1}{2}$" BRG EACH END. GROUT EXISTING WALL SOLID @ BEARING.
2. ALL EXTERIOR LINTELS TO BE GALV.
3. ALL EXTERIOR LINTELS TO BE HOT DIPPED GALVANIZED.



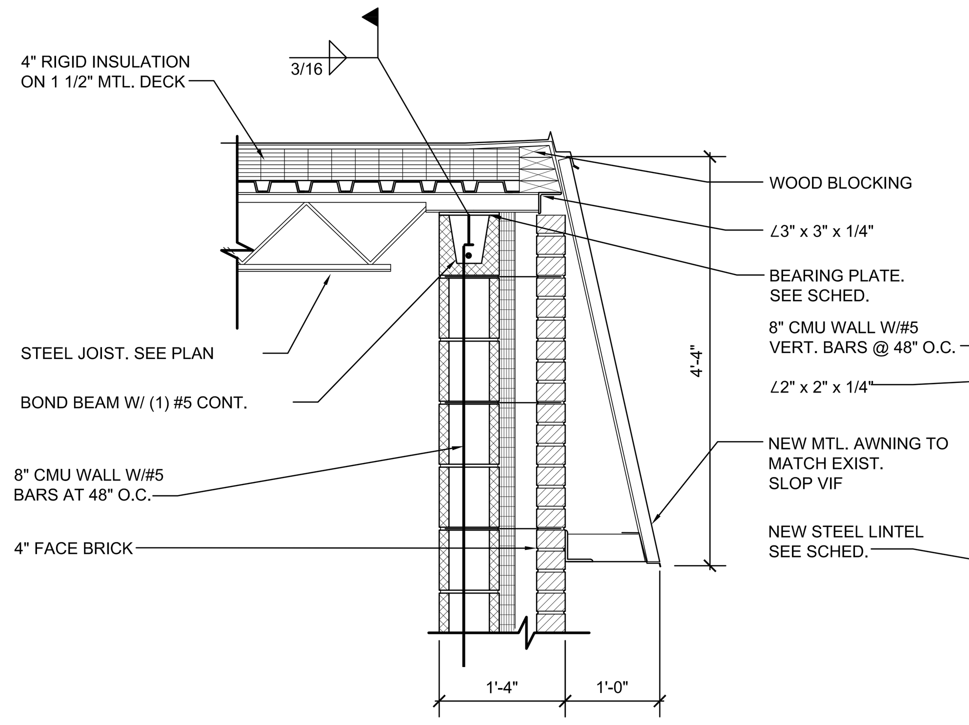
6 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"



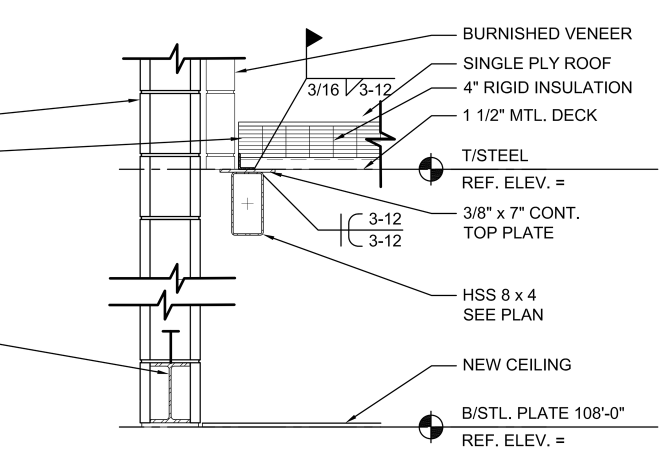
2 A1.1WC **ENLARGED ENTRY ENLARGED PLAN**

SCALE: 1/4" = 1'-0"



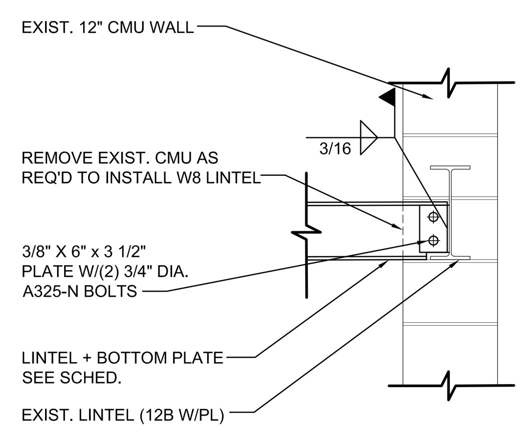
11 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"



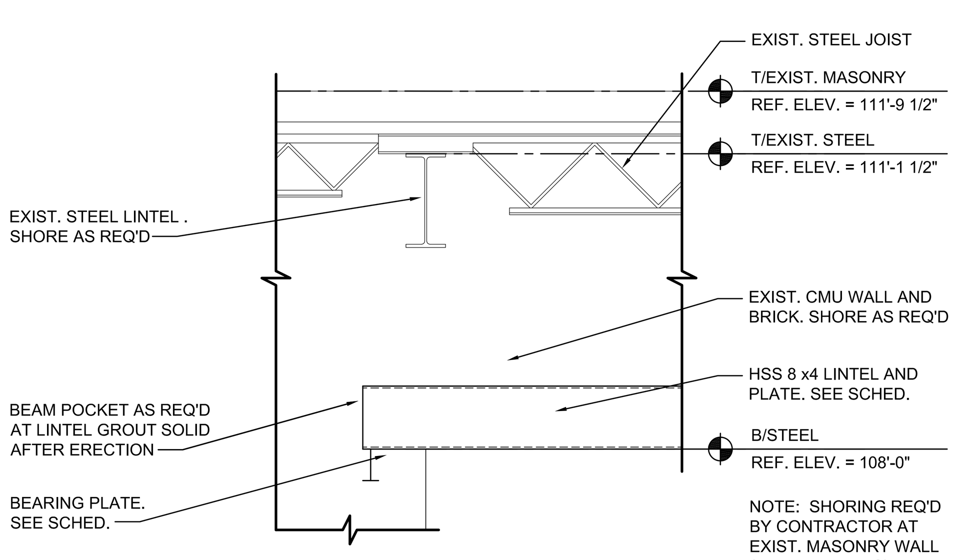
7 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"



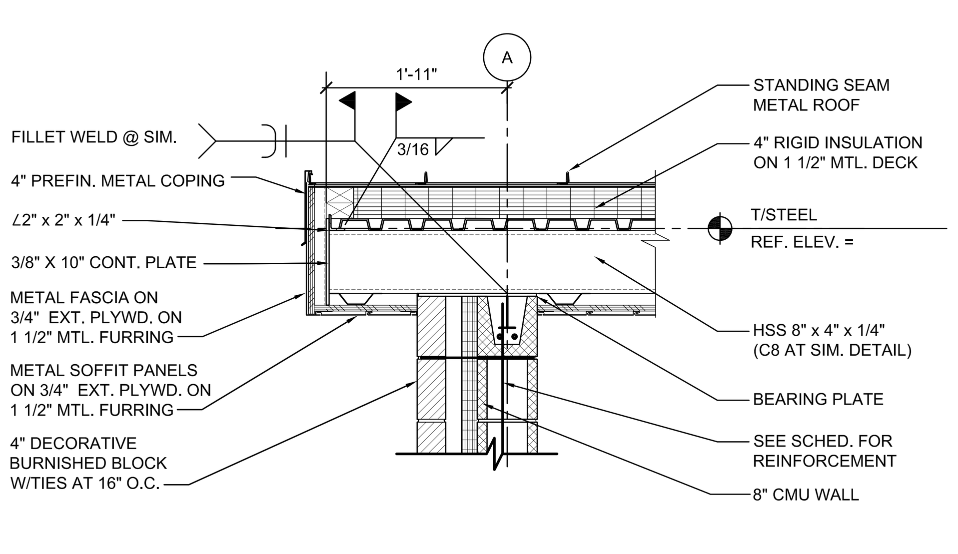
5 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"



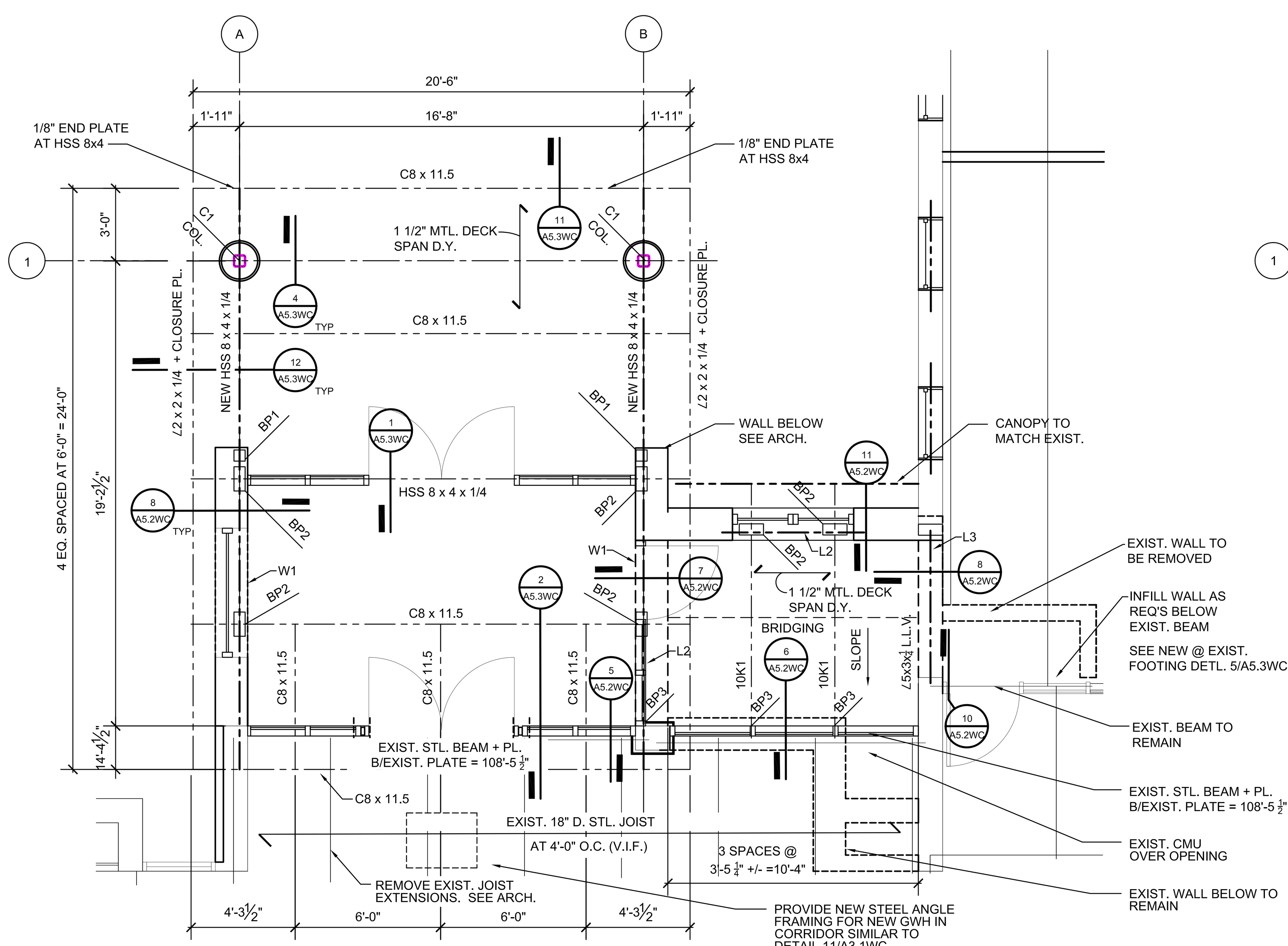
10 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"



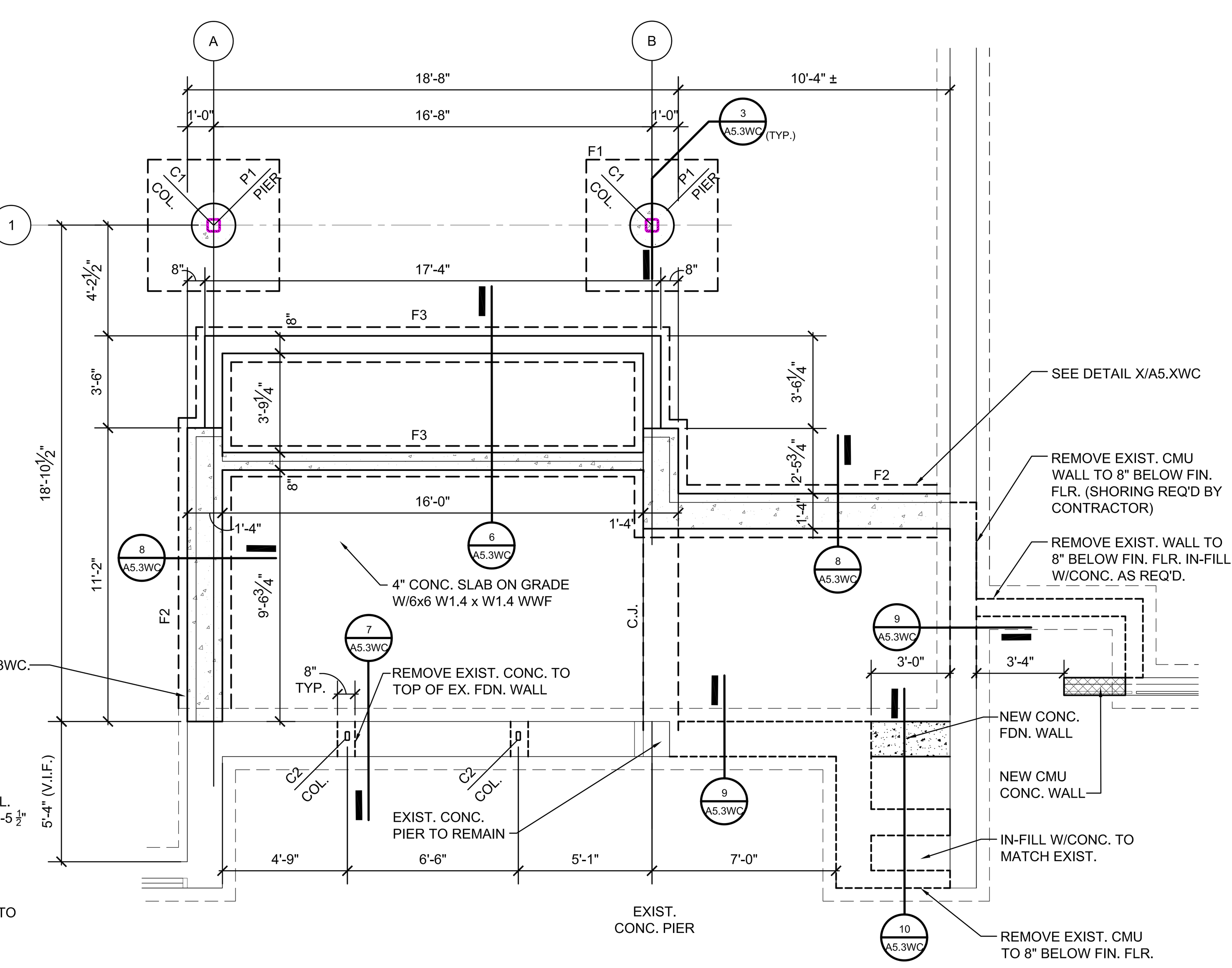
9 A5.2WC **SECTION DETAIL**

SCALE: 3/4" = 1'-0"



3 A1.1WC **ENLARGED ENTRY FRAMING PLAN**

SCALE: 1/4" = 1'-0"



1 A1.1WC **ENLARGED ENTRY FOUNDATION PLAN**

SCALE: 1/4" = 1'-0"

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND

2017 RENOVATIONS

ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY SCHOOL

ENLARGED ENTRY STRUCTURAL PLANS

PRELIMINARY	☐
DESIGN DEVELOPMENT	☐
CONSTRUCTION	■
FINAL RECORD	☐

DRAWN BY NJL
CHECKED BY BJS

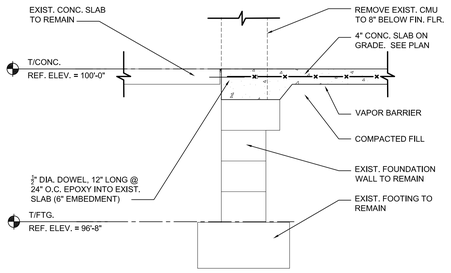
REVISIONS

DATE: November 30, 2016

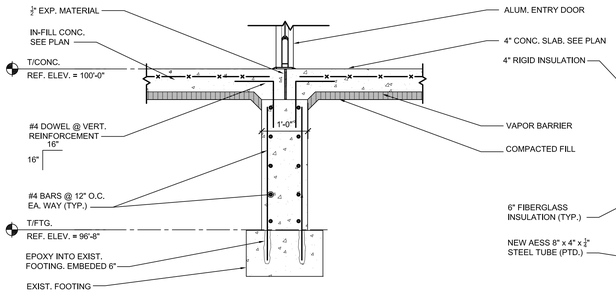
SHEET NO.

A5.2WC

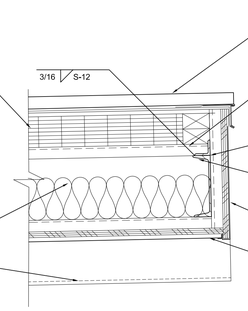
JOB NO. 161664B



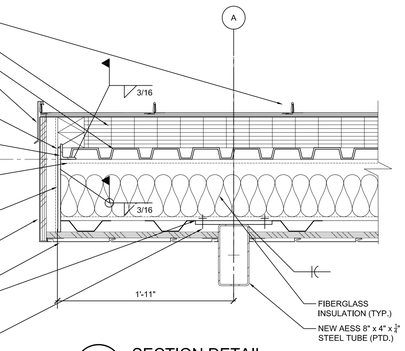
9 A5.2WC SECTION DETAIL
SCALE: 3/4" = 1'-0"



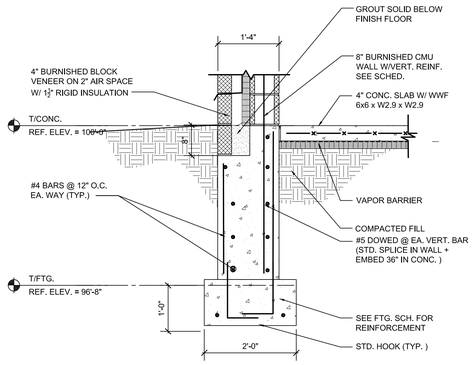
10 A5.2WC SECTION DETAIL
SCALE: 3/4" = 1'-0"



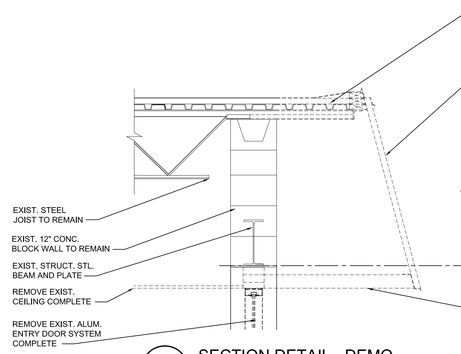
11 A5.3WC SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



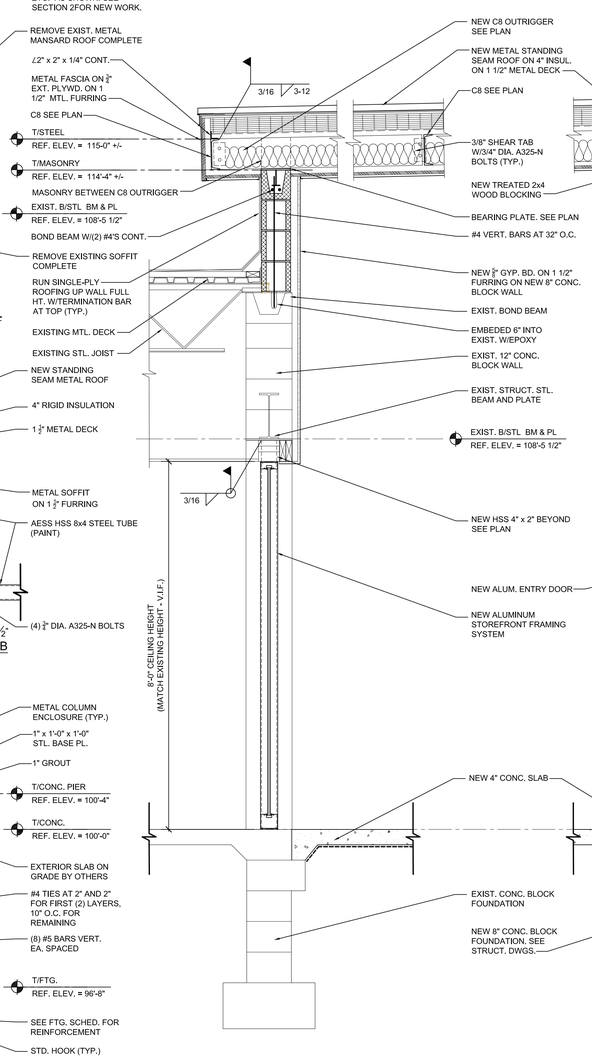
12 A5.3WC SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



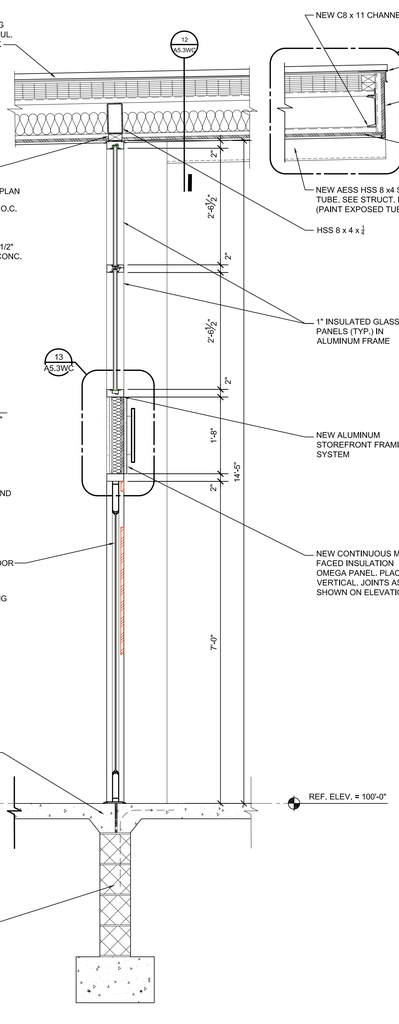
8 A5.2WC SECTION DETAIL
SCALE: 3/4" = 1'-0"



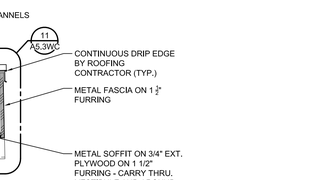
5 A5.2WC SECTION DETAIL - DEMO
SCALE: 3/4" = 1'-0"

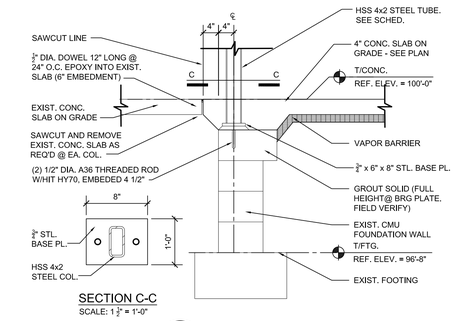


2 A5.2WC ENTRY WALL SECTION
SCALE: 3/4" = 1'-0"



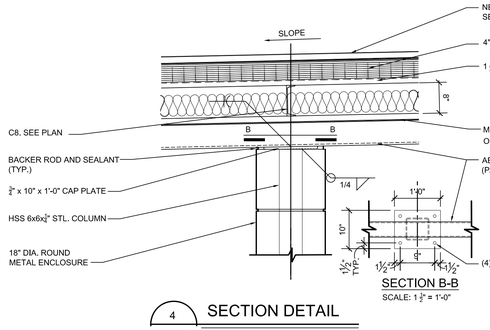
1 A5.2WC ENTRY WALL SECTION
SCALE: 3/4" = 1'-0"





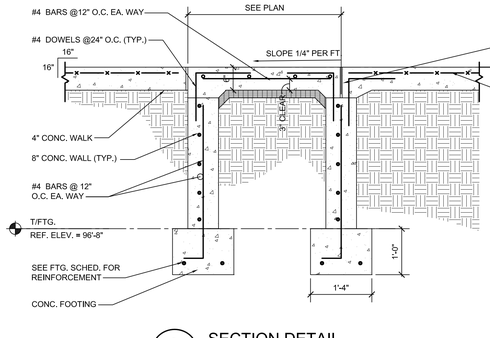
SECTION C-C
SCALE: 1 1/2" = 1'-0"

7 A5.2WC SECTION DETAIL
SCALE: 3/4" = 1'-0"

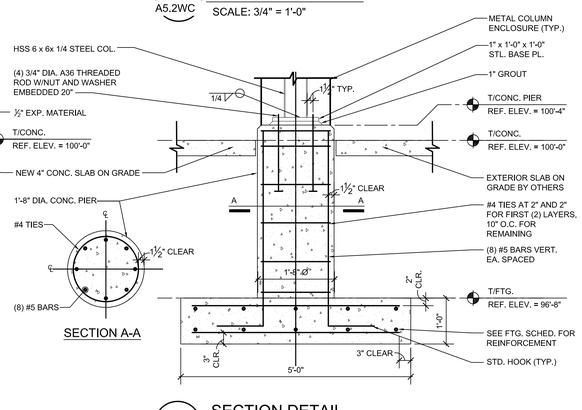


SECTION B-B
SCALE: 1 1/2" = 1'-0"

4 A5.2WC SECTION DETAIL
SCALE: 3/4" = 1'-0"

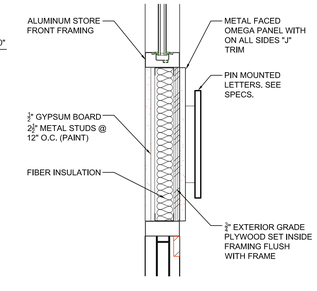


6 A5.2WC SECTION DETAIL
SCALE: 3/4" = 1'-0"



SECTION A-A

3 A5.2WC SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



13 A5.3WC WINDOW DETAIL
SCALE: 1 1/2" = 1'-0"

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DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 30, 2016

SHEET NO.
A5.3WC

JOB NO. 161664B

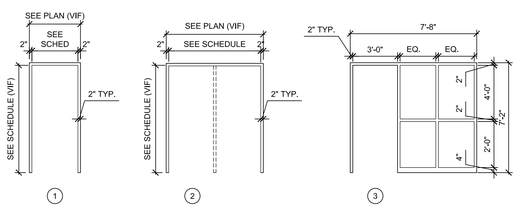
DOOR SCHEDULE

DOOR OPENING			DOOR			FRAME			DETAILS						
NO.	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HEAD	JAMB	SILL	THRESHOLD	U.L. LABEL	HARDWARE SET	REMARKS
FIRST FLOOR															
C113A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C114A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
C115A	3'-0"	7'-0"	H	WD	STN			PT							1,12
C115B	3'-0"	7'-0"	H	AL	PFN	1	AL	PFN	-	-	-	AL	-	-	7,13
C116A	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	-	-	1,6,12
C118A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
C119A	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C119B	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C119C	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C119D	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C120A	2'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	-	-	1,12,6
C121A	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	-	-	1,12,6
C121B	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	-	-	1,12,6
C122A	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	-	-	1,12,6
C122B	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
			H			-	-		-	-	-	-	-	-	
C123A	3'-0"	7'-0"		WD	STN			PT							1,12,6
C124A	3'-0"	7'-0"	H	WD	STN	-	-	PT	-	-	-	-	-	-	1,12,6
C124B	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,6
C125A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C125B	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C126A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C127A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C128A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C129A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C130A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C131A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C132A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C133A	3'-0"	7'-0"	F	HM	PT	-	-	PT	-	-	-	-	45	-	1,12
C133B	3'-0"	7'-0"	F	HM	PT	-	-	PT	-	-	-	-	45	-	1,12
C134A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	20	-	1,12
C136A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	45	-	1,12
C137	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C138	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C139	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

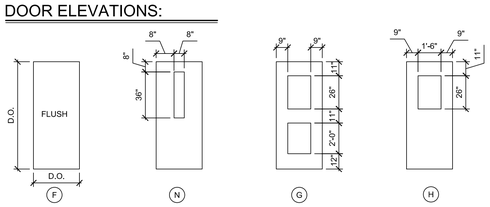
DOOR SCHEDULE

DOOR OPENING			DOOR			FRAME			DETAILS						
NO.	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HEAD	JAMB	SILL	THRESHOLD	U.L. LABEL	HARDWARE SET	REMARKS
FIRST FLOOR															
A100A	2 @ 3'-0"	7'-0"	N	FRP	PFN	-	AL	PFN	-	-	-	AL	-	-	7,13
A100B	2 @ 3'-0"	7'-0"	N	FRP	PFN	-	AL	PFN	-	-	-	-	-	-	6,13
A100C	3'-0"	7'-0"	H	WD	PFN	3	HM	PFN	-	-	-	-	20	-	8,13
A101A	3'-0"	7'-0"	F	WD	STN	1	HM	PT	-	-	-	MAR	-	-	13
A102A	3'-0"	7'-0"	N	WD	STN	1	HM	PT	-	-	-	-	-	-	6,13
A103															
A103A	3'-0"	7'-0"	H	WD	STN	-	HM	PT	-	-	-	-	20	-	8,13
A104A	3'-0"	7'-0"	N	WD	STN	1	HM	PT	-	-	-	-	-	-	6,13
A105	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	20	-	1,12
A107A	3'-0"	7'-0"	F	WD	STN	-	-	-	-	-	-	-	20	-	1,12
A108A	3'-0"	7'-0"	N	WD	STN	1	HM	PT	-	-	-	-	20	-	6,13
A109A	3'-0"	7'-0"	F	WD	STN	1	HM	PT	-	-	-	-	-	-	-
A110A	2 @ 3'-0"	7'-0"	N	FRP	PFN	2	AL	PFN	-	-	-	AL	-	-	4,7,13
A113A	3'-0"	7'-0"	F	WD	STN	1	HM	PT	-	-	-	MAR	20	-	13
A114A	3'-0"	7'-0"	F	WD	STN	1	HM	PT	-	-	-	MAR	20	-	13
A115A	3'-0"	7'-0"	N	WD	STN	1	HM	PT	-	-	-	-	20	-	1,8,13
A115B	3'-0"	7'-0"	N	WD	STN	1	HM	PT	-	-	-	-	20	-	1,8,13
A117A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
A117B	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A118A	3'-0"	7'-0"	F	WD	STN			PT							1,12
						-	-		-	-	-	-	-	-	
A119A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A120A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
A120B	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A121A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	-
A122A	3'-0"	7'-0"	F	WD	STN	1	HM	PT	-	-	-	-	20	-	13
A122B	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A123A	2@3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
A123B	2@4'-0"	-	F	WD	STN	1	HM	PT	-	-	-	-	-	-	13
A123C	2@3'-0"	7'-0"	N	WD	STN	-	HM	PT	-	-	-	-	20	-	1,8,12
A125A	3'-0"	7'-0"	N	WD	STN			PT					20		1,12,8
						-	-		-	-	-	-		-	
A125B	(2)3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A125C	(2)3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A128A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A130A	2 @ 3'-0"	7'-0"	F	FRP	PFN	1	AL	PFN	-	-	-	AL	-	-	13
A131A	2 @ 3'-0"	7'-0"	F	FRP	PFN	1	AL	PFN				AL			13
						-	-	-					-	-	
A133A	2 @ 3'-0"	7'-0"	F	FRP	PFN	1	AL	PFN	-	-	-	AL	-	-	4,7,13
A134A		7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A134B	3'-0"	7'-0"	N	WD	PFN	-	-	PT	-	-	-	-	-	-	8,12,6
A135A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A136A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A137A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A138A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A138A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
A141A	2 @ 3'-0"	7'-0"	N	FRP	PFN	2	AL	PFN	-	-	-	AL	-	-	4,7,13
A142A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A143A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A144A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A145A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A146A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A147A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A148A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A149A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A150A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A151A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A152A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A153A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A154	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	45	-	1,12
A155A	3'-0"	7'-0"	N	FRP	PFN	1	AL	PFN	-	-	-	AL	-	-	13,7
A155B	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
A157A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
A158A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A160A	2@3'-0"	7'-0"	G	WD	STN	-	-	PT	-	-	-	-	45	-	1,8,12
A161A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	45	-	1,12
A162A	2'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	-	-	1,12
A163A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	20	-	1,12,8
A164A	2 @ 3'-0"	7'-0"	N	FRP	PFN	2	AL	PFN	-	-	-	AL	-	-	4,7,13
A167A	2'-0"	7'-0"	N	WD	STN	2	HM	PT	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C100A	2@3-0	7-0	G	WD	STN	-	-	PT	-	-	-	-	45	-	1,8,12
C100B	2@3-0	7-0	G	WD	STN	-	-	PT	-	-	-	-	45	-	1,8,12
C101A	3'-0"	-	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C101B	3'-0"	7'-0"	H	AL	-	1	AL	PFN	-	-	-	-	-	-	7,13
C102A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C103A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C104A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C105A	3'-0"	7'-0"	F	HM	PT	-	-	PT	-	-	-	-	45	-	1,8,12
C105B	3'-0"	7'-0"	F	HM	PT	-	-	PT	-	-	-	-	45	-	1,8,12
C106A	3'-0"	7'-0"	F	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C107A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C108A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	20	-	1,8,12
C109A	3'-0"	7'-0"	N	WD	STN	-	-	PT	-	-	-	-	-	-	-
C111A	2 @ 3'-0"	7'-0"	H	FRP	PFN	2	AL	PFN	-	-	-	AL	-	-	4,7,13
C112A	2 @ 3'-0"	7'-0"	H	FRP	-	1	AL	PFN	-	-	-	AL	-	-	4,7,13

FRAME ELEVATIONS:



DOOR ELEVATIONS:



NOTES: (APPLIES TO ALL DOORS)

A. VERIFY ALL DOOR OPENINGS AND MASONRY FRAME OPENINGS IN FIELD PRIOR TO FABRICATION OF NEW.
B. ALL NEW FRP DOORS AND ALUMINUM FRAMES TO RECEIVE MANUFACTURER FINISH.REFER TO SPECIFICATIONS FOR HARDWARE SETS.
C. ALL NEW WOOD DOORS CALLING FOR STAIN TO BE FACTORY STAINED AND SEALED ON ALL SURFACES AND SIDES AND ENDS. DO NOT LEAVE RAW WOOD ON ENDS EXPOSED.

REMARKS: (NOTE: NOT ALL REMARKS LISTED ARE USED)

1. EXISTING FRAME TO REMAIN - PREP & PAINT EXISTING FRAME
2. REMOVE & REPLACE EXIST DOOR AND FRAME - SEE SCHEDULE
3. PROVIDE ADA AUTOMATIC OPENER @ 1 LEAF
4. PROVIDE KEYED REMOVABLE MULLION ON CENTER MULLION
5. VERIFY MASONRY OPENING IN FIELD PRIOR TO FABRICATION OF NEW DOOR & FRAME.
6. PROVIDE $\frac{1}{4}$" LAM. GLASS IN ALL DOOR AND FRAME OPENINGS.
7. PROVIDE $\frac{1}{4}$" LAM. GLASS IN DOOR AND INSUL. LAM. GLASS IN FRAME OPENINGS
8. PROVIDE FIRE RATED GLASS IN DOOR AND FRAME OPENINGS. SEE SPEC.
9. DISCONNECT ALARM SYSTEM TO REPLACE DOOR/ FRAME AND RECONNECT AS REQUIRED WHEN NEW DOOR/ FRAME IS IN PLACE.
10. DOORS AND FRAME TO REMAIN. CHANGE HARDWARE AS SPEC'D. MODIFY DOORS & FRAMES AS REQ'D FOR NEW HARDWARE REQUIREMENTS.
11. PROVIDE 20 MIN RATED GLASS IN DOOR AND 45 MIN RATED GLASS IN FRAME / TRANSOM PANEL.
12. REMOVE EXIST. DOOR AND HARDWARE AND REPLACE WITH NEW DOOR AND HARDWARE. VERIFY FRAME OPENING/DOOR SIZE IN FIELD PRIOR TO ORDERING NEW DOOR.
13. NEW DOOR AND FRAME.
14. PROVIDE 45 MIN RATED GLASS IN TRANSOM PANEL.
15. REMOVE / REPLACE MARBLE THRESHOLD WITH NEW.
16. PROVIDE SOUND SEALS ON ALL SIDES OF EXISTING WOOD DOOR.
17. PROVIDE NEW ALUM. INSERT FRAME WITH CLEAR ANODIZED FINISH TO FIT INSIDE EXISTING FRAMED DOOR OPENING. REMOVE STOPS, REWORK FRAME AS REQ'D TO REVERSE SWING.
18. NEW TOTAL DOORS SYSTEM - SEE SPEC.
19. PROVIDE CUSTOM ALUMINUM FRAME COLOR TO MATCH COLOR OF EXISTING WINDOW (VIF)
20. REMOVE HM AND PROVIDE NEW LOCKING HARDWARE TO CREATE SECURE ENTRY VESTIBULE

ABBREVIATIONS

AL	ALUMINUM
ETR	EXISTING TO REMAIN
FRP	FIBERGLASS REINFORCED POLYESTER
HM	HOLLOW METAL
MAR	SYNTHETIC MARBLE THRESHOLD
PFN	PRE FINISHED BY MANUFACTURER
PTD	PAINTED
WD	WOOD
STL	STEEL
STN	STAINED
TG	TEMPERED GLASS
GL	GLASS

NOTE: CONTRACTOR TO REMOVE ALL EXISTING DOOR CORES AND PROVIDE NEW CORES AND KEY NEW CORES TO OWNERS KEY SYSTEM. THIS APPLIES TO ALL DOORS WHETHER INCLUDE IN SCHEDULE OR NOT (QTY= 40)

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DOOR SCHEDULE & DETAILS

PRELIMINARY ☐
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DATE: November 30, 2016
SHEET NO.
A7.1WC

JOB NO. 161664B

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING MATERIAL	CEILING HGT.	REMARKS
FIRST FLOOR CONT.							
A160	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
A161	EXISTING STORAGE	LVT	RB	PT	-	-	-
A162	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A163	EXISTING CLASSROOM	CPT	RB	PT	-	-	11
A164	EXISTING VESTIBULE	WC	RB	PT	ACT	-	2,9
A167	NEW TOILET	-	-	PT	ACT	-	-
C100	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
C101	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C102	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C103	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C104	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
C105	EXISTING STORAGE	LVT	RB	PT	-	-	-
C106	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
C107	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C108	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C109	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C110	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	-
C111	EXISTING CORRIDOR	WC/LVT	RB	PT	ACT	-	2,4
C112	EXISTING CORRIDOR	WC/LVT	RB	PT	ACT	-	2,4
C113	EXISTING OFFICE	LVT	RB	PT	-	-	-
C114	EXISTING CLOSET	LVT	RB	PT	-	-	-
C115	-	LVT	RB	PT	-	-	-
C116	EXISTING OFFICE	LVT	RB	PT	-	-	-
C117	EXISTING CLASSROOM	LVT	RB	PT	-	-	-
C118	EXISTING CLOSET	LVT	RB	PT	-	-	-
C119	EXISTING MEDIA CENTER	CPT	RB	PT	-	-	4
C120	EXISTING WORKROOM	LVT	RB	PT	-	-	-
C121	EXISTING OFFICE	CPT	RB	PT	-	-	12
C122	EXISTING SERVER ROOM	LVT	RB	PT	-	-	-
C123	EXISTING OFFICE	CPT	RB	PT	-	-	12
C124	EXISTING CONFERENCE	LVT	RB	PT	-	-	-
C125	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
C126	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C127	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C128	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C129	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C130	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C131	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
C132	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
C133	EXISTING STORAGE	LVT	RB	PT	-	-	-
C134	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
C135	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
C136	STORAGE	LVT	RB	PT	-	-	-
C137	OFFICE	LVT	RB	PT	-	-	-
C138	CONFERENCE	LVT	RB	PT	-	-	-
C139	OFFICE	LVT	RB	PT	-	-	-
C140	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
C141	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING MATERIAL	CEILING HGT.	REMARKS
FIRST FLOOR							
A100	SECURE ENTRY	WC	RB	-	MET	-	-
A101	TOILET	PCT	4PCT	4PCT	ACT	-	3
A102	PRINCIPAL	CPT	RB	PT	ACT	-	-
A103	ADMINISTRATIVE OFFICES	CPT	RB	PT	ACT	-	-
A104	CONFERENCE	CPT	RB	PT	ACT	-	-
A105	STAFF LOUNGE	LVT	RB	PT	ACT	-	2
A106	CLINIC	LVT	RB	PT	ACT	-	-
A107	OFFICE	LVT	RB	PT	ACT	-	2
A108	STAFF ROOM	LVT	RB	PT	ACT	-	2
A109	FILES	LVT	RB	PT	ACT	-	-
A110	EXISTING CORRIDOR	LCT	RB	PT	ACT	-	2
A111	EXISTING TOILET	PCT	4PCT	EPT	-	-	-
A112	EXISTING TOILET	-	-	EPT	-	-	-
A113	TOILET	PCT	4PCT	EPT	-	-	2
A114	TOILET	PCT	4PCT	EPT	-	-	2
A115	KITCHEN	QT	QT	EPT	ACT	-	-
A116	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
A117	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A118	EXISTING CLOSET	LVT	RB	PT	-	-	-
A119	EXISTING CLOSET	LVT	RB	PT	-	-	-
A120	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A121	NEW TOILET	PCT	4PCT	PCT	-	-	6
A122	IDL	LVT	RB	PT	-	-	-
A123	EXISTING CAFETERIA	LVT	RB	PT	ETR/PT	-	3,4
A124	NEW TOILET	PCT	4PCT	PCT	-	-	6
A125	EXISTING GYMNASIUM	-	-	PT	ETR/PT	-	4
A126	EXISTING STORAGE	LVT	RB	PT	-	-	-
A127	EXISTING OFFICE	LVT	RB	PT	-	-	-
A128	EXISTING STORAGE	LVT	RB	PT	-	-	-
A129	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
A130	EXISTING RECEIVING	LVT	RB	PT	ETR/PT	-	-
A131	EXISTING MECHANICAL	-	-	PT	ETR/PT	-	-
A132	EXISTING TOILET	-	-	EPT	ETR/PT	-	6
A133	EXISTING CORRIDOR	WC/LVT	RB	PT	ACT	-	2,4
A134	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A135	EXISTING CLOSET	LVT	RB	PT	-	-	-
A136	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A137	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A138	EXISTING CLOSET	LVT	RB	PT	-	-	-
A139	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A140	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4
A141	EXISTING CORRIDOR	WC/LVT	RB	PT	ACT	-	2,9
A142	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A143	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A144	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A145	EXISTING CLASSROOM	LVT	RB	PT	-	-	1
A146	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A147	EXISTING CLOSET	LVT	RB	PT	-	-	-
A148	EXISTING CLOSET	LVT	RB	PT	-	-	-
A149	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A150	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A151	EXISTING CLOSET	LVT	RB	PT	-	-	-
A152	EXISTING CLOSET	LVT	RB	PT	-	-	-
A153	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A154	EXISTING STORAGE	LVT	RB	PT	-	-	-
A155	EXISTING LGI ROOM	LVT	RB	PT	-	-	4
A156	EXISTING KILN	LVT	RB	PT	-	-	-
A157	EXISTING ART ROOM	LVT	RB	PT	-	-	-
A158	EXISTING TOILET	PCT	4PCT	EPT/PCT	ACT	-	2,6
A159	EXISTING CORRIDOR	LVT	RB	PT	ACT	-	2,4

ROOM FINISH SCHEDULE GENERAL NOTES (APPLIES TO ALL ROOMS):

1. PAINT ALL EXPOSED ITEMS IN ROOMS: DOOR FRAMES, WINDOW FRAMES, DUCTS, PIPES, CONDUITS, ROOF FRAMING, ROOF DECK, ETC. (MULTIPLE COLORS PER ROOM WILL BE USED).
2. SEE ELEVATIONS & DETAILS FOR GYP BD SOFFIT HEIGHTS & SIZES.
3. SEE ELEVATIONS & DETAILS FOR WALL TILE HEIGHTS & LOCATIONS
4. SEE PLANS FOR FLOOR PATTERNS AND WALK-OFF CARPET LOCATIONS
5. PROVIDE VINYL TRANSITION STRIPS AT DISSIMILAR FLOOR FINISHES - CARPET / TILE, CARPET / CONCRETE, ETC.
6. PAINT NEW WALL CONSTRUCTION TO MATCH EXISTING IN ROOM (VIF)
7. PROVIDE STAINLESS STEEL SCHLUTER TRANSITIONS AT ALL HARD TILE / CARPET LOCATIONS.
8. MODIFY EXISTING LAY-IN CEILINGS AS REQUIRED TO ACCOMMODATE NEW WALL PLACEMENT.
9. REMOVE / REINSTALL EXISTING LAY-IN CEILING SYSTEMS AS REQUIRED FOR OVERHEAD PIPING, DUCT WORK, ETC (VIF).
10. VERIFY WITH EACH SCHOOL PRINCIPAL **BEFORE PAINTING OVER** TOP OF EXISTING PAINTED MURALS IN CORRIDORS AND CLASSROOMS.
11. ALL TOILET ROOMS CALLING FOR PAINT TO BE EPOXY PAINT (WALLS & CEILINGS).

ROOM FINISH SCHEDULE ABBREVIATIONS:

ACT	ACOUSTICAL CEILING TILE IN METAL GRID	PT	PAINT
BR	BRICK	QT	QUARRY TILE
CMU	CONCRETE MASONRY UNIT	RB	4" RESILIENT COVE BASE
CPT-(1,2,3)	CARPET - SEE SPECIFICATIONS	RTR	RUBBER TREADS AND RISERS
EPT	EPOXY PAINT	SC	SEALED CONCRETE
ETR	EXISTING TO REMAIN	TEC	2'-0" x 2'-0" TECTUM IN GRID SYSTEM
EXP	EXPOSED CONSTRUCTION	TF	TILE FLOOR
GB	GYPSUM BOARD	VACT	VINYL FACED ACT
MET	METAL CEILING	VB	VENTED BASE
PCT	PORCELAIN CERAMIC TILE	WC	WALK-OFF CARPET
4PCT	4" PORCELAIN CERAMIC TILE COVE BASE		

ROOM FINISH SCHEDULE REMARKS:

1. PROVIDE 12'-0" x 12'-0" AREA RUG - SEE SPEC.
2. NEW CEILING TO BE PLACED AT SAME HEIGHT AS EXISTING (VIF).
3. SEE FLOOR PLANS FOR EXTENT OF NEW FLOORING & PATTERNS.
4. MULTIPLE WALL PAINT COLORS & PATTERNS WILL BE USED IN THIS ROOM.
5. PAINT ALL EXISTING HOLLOW METAL LDOOR & WINDOW FRAMES IN ROOM.
6. SEE ELEVATIONS AND NOTES FOR HEIGHT OF WALL TILE. PAINT CMU WALL ABOVE TILE (VERIFY EACH ROOM DIMENSION IN FIELD).
7. SEE ELEVATIONS AND DETAILS FOR SOFFITS / WALL MATERIALS TO BE PAINTED.
8. REMOVE WALL COVERING, SKIM COAT WALLS, SAND AND PREP FOR NEW PAINT AS REQUIRED.
9. PROVIDE HOLD DOWN CLIPS IN ACOUSTIC CEILING TILE SYSTEM.
10. PROVIDE GYM FLOOR STRIPING AS DETAILED ON ENLARGED PLANS.
11. PROVIDE SOLID COLOR "OVAL" SHAPE IN CARPET. EXACT SIZE TBD.
12. PAINT ALL WALLS IN ROOM WITH MARKER BOARD PAINT. FULL HEIGHT & WIDTH.

WA

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK
ELEMENTARY SCHOOL

ROOM FINISH SCHEDULE

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 30, 2016

SHEET NO.
A7.2WC

JOB NO. 161664B

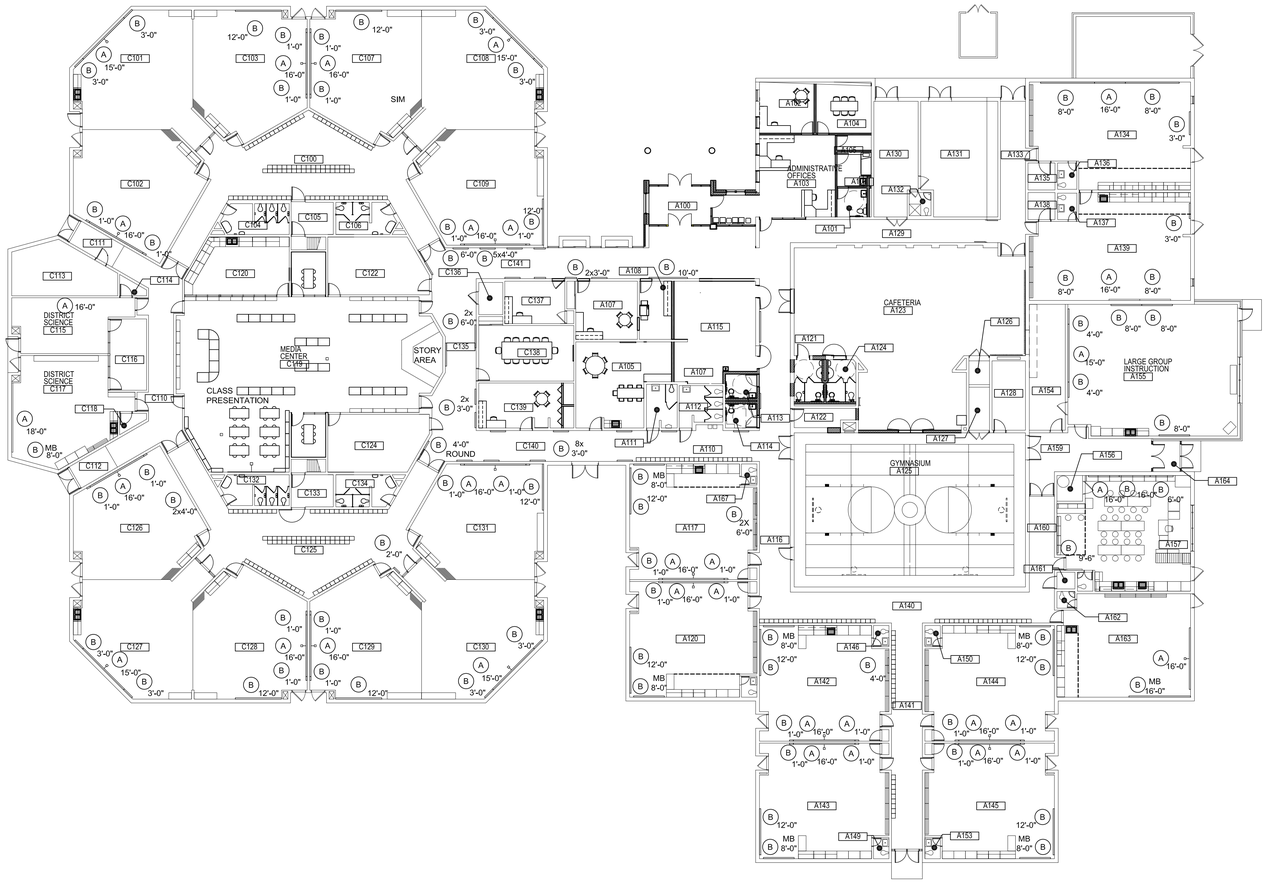
GENERAL DISPLAY BOARD KEYNOTES:

1. ALL WHITE BOARD/TACK BOARD SIZES AND LOCATIONS ARE TO BE COORDINATED WITH ELECTRICAL DRAWINGS TO COMPATIBILITY WITH NEW RACEWAYS.

DISPLAY BOARD KEYNOTES:

(A) NEW 48" H MARKER BOARD WITH SMART BOARD SEE DETAIL 2/A8.1WC OR 3/A8.1WC. SEE PLAN FOR WIDTH AND LOCATION. COORDINATE WITH EXISTING RACEWAYS/OBSTRUCTIONS IN FIELD AS REQ'D.

(B) PROVIDE/INSTALL NEW 48" H TACK BOARD IN SAME LOCATION ON WALL. (SAME HT. AS MARKER BOARD @ SMART BOARD) SEE PLANS FOR WIDTHS.



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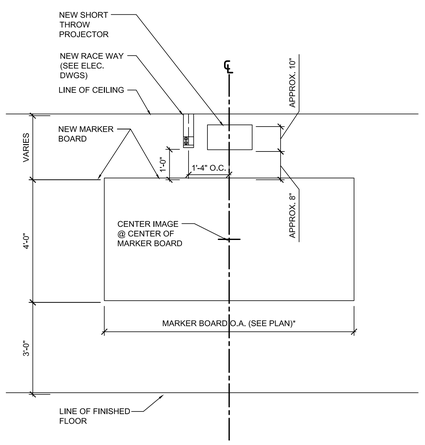
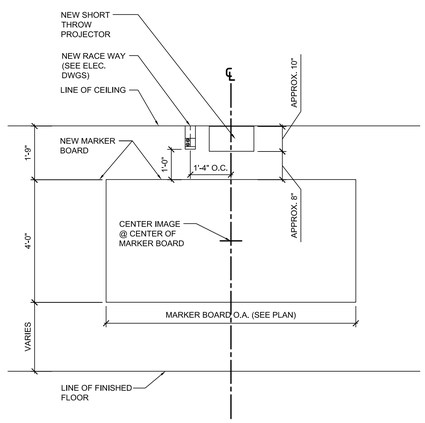
1 - COMPOSITE FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



2 - TYPICAL MARKER BOARD LOCATION @ PROJECTOR LOCATION - CEILING > 8'-9" A.F.F.

SCALE: N.T.S.



3 - TYPICAL MARKER BOARD LOCATION @ PROJECTOR LOCATION - CEILING < 8'-9" A.F.F.

SCALE: N.T.S.

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DISPLAY BOARD PLAN

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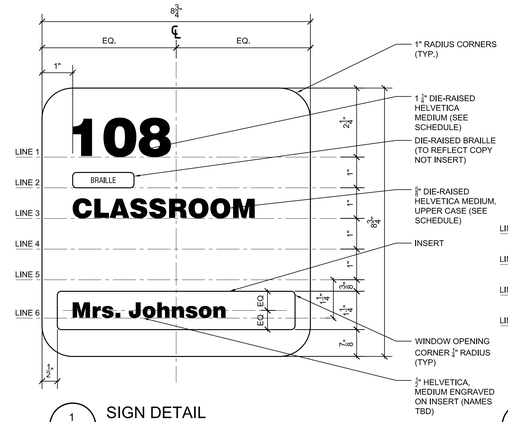
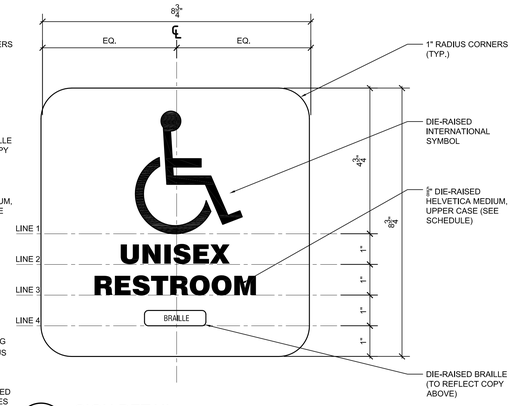


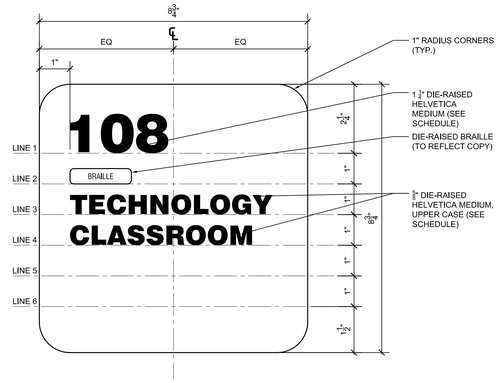
1 - SIGN DETAIL

SCALE: 6" = 1'-0"



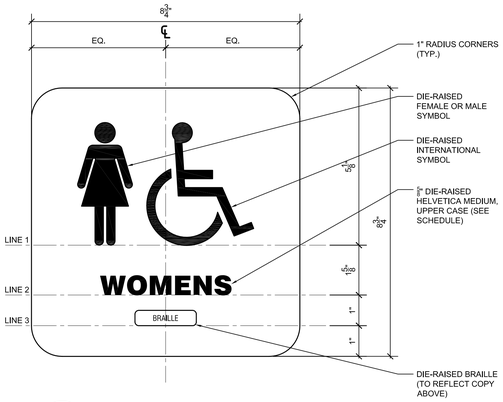
2 - SIGN DETAIL

SCALE: 6" = 1'-0"



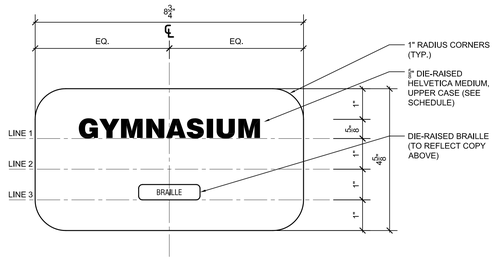
3 - SIGN DETAIL

SCALE: 6" = 1'-0"



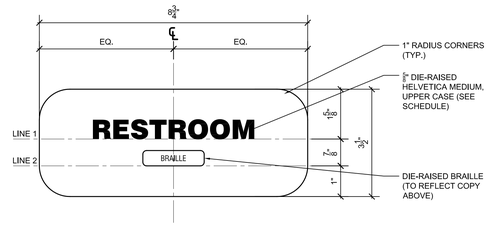
4 - SIGN DETAIL

SCALE: 6" = 1'-0"



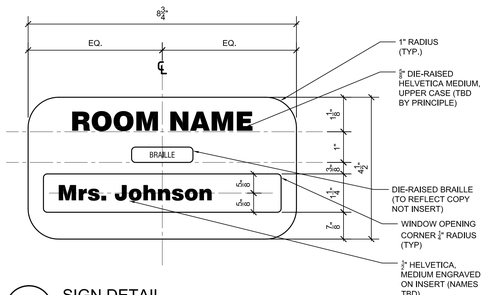
5 - SIGN DETAIL

SCALE: 6" = 1'-0"



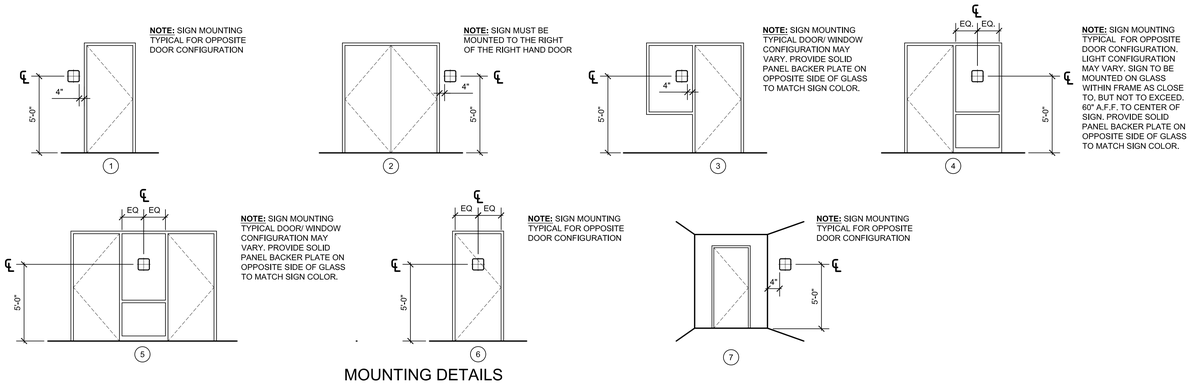
6 - SIGN DETAIL

SCALE: 6" = 1'-0"



7 - SIGN DETAIL

SCALE: 6" = 1'-0"



MOUNTING DETAILS

SCALE: 1/4" = 1'-0"

SIGNAGE SCHEDULE

QTY	PLAN NO.	OWNER NO.	TYPE	MOUNTING	TEXT
FIRST FLOOR					
1	A101	-	2	1	-
1	A102	-	7	1	LINE 1: PRINCIPAL
2	A103	-	5	1	LINE 1: MAIN LINE 2: OFFICE
1	A104	-	5	1	LINE 1: CONFERENCE LINE 2: ROOM
1	A105	-	6	1	LINE 1: STAFF
1	A106	-	6	1	LINE 1: CLINIC
1	A107	-	7	1	LINE 1: OFFICE
1	A108	-	6	1	LINE 1: STAFF
1	A109	-	6	1	LINE 1: FILES
-	-	-	-	-	-
1	A111	-	5	1	LINE 1: MEN LINE 2: TOILET
1	A112	-	5	1	LINE 1: WOMEN LINE 2: TOILET
1	A113	-	2	1	-
1	A114	LINE 1: 4	2	1	-
1	A115	LINE 1: 4	6	1	LINE 1: KITCHEN
-	-	-	-	-	-
1	A117	LINE 1: 16	1	7	-
1	A120	LINE 1: 17	1	7	-
1	A121	-	2	1	-
1	A122	-	6	1	LINE 1: IDL
2	A123	-	6	1,7	LINE 1: CAFETERIA
1	A124	-	2	-	-
3	A125	-	6	1	LINE 1: GYMNASIUM
1	A126	-	6	1	LINE 1: STORAGE
1	A127	-	6	1	LINE 1: STORAGE
1	A128	-	6	1	LINE 1: STORAGE
1	A130	-	6	1	LINE 1: CUSTODIAL
1	A131	-	5	1	LINE 1: BOILER LINE 2: ROOM
1	A132	-	6	1	LINE 1: RESTROOM
1	A134	LINE 1: 26	1	7	-
1	A135	-	6	1	LINE 1: STORAGE
1	A136	-	6	1	LINE 1: RESTROOM
1	A137	-	6	1	LINE 1: RESTROOM
1	A138	-	6	1	LINE 1: STORAGE
1	A139	LINE 1: 25	1	7	-
1	A142	LINE 1: 16	1	7	-
1	A143	LINE 1: 17	1	7	-
1	A144	LINE 1: 21	1	7	-
1	A145	LINE 1: 20	1	7	-
1	A146	-	6	1	LINE 1: RESTROOM
1	A149	-	6	1	LINE 1: RESTROOM
1	A150	-	6	1	LINE 1: RESTROOM
1	A153	-	6	1	LINE 1: RESTROOM
2	A154	-	6	1	LINE 1: RESTROOM
1	A155	LINE 1: 24	1	7	-
1	A156	-	6	1	LINE 1: KILN
1	A157	LINE 1: 23	1	7	-
1	A158	-	6	1	LINE 1: RESTROOM
1	A161	-	6	1	LINE 1: CUSTODIAL
1	A162	-	6	1	LINE 1: RESTROOM
1	A163	LINE 1: 22	1	7	-
1	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
1	C101	LINE 1: 5	1	7	-
1	C102	LINE 1: 6	1	1	-
1	C103	LINE 1: 4	1	1	-
1	C104	-	6	1	LINE 1: GIRLS LINE 2: RESTROOM
1	C105	-	5	1	LINE 1: MECHANICAL
1	C106	-	6	1	LINE 1: BOYS LINE 2: RESTROOM
1	C107	LINE 1: 3	1	1	-
1	C108	LINE 1: 2	1	7	-
1	C109	LINE 1: 1	1	1	-
1	C113	LINE 1: 7	1	1	-
1	C115	LINE 1: 8	1	1	-
2	C116	-	6	1	LINE 1: OFFICE
1	C117	LINE 1: 9	1	1	-
4	C119	-	6	7	LINE 1: MEDIA LINE 2: CENTER
1	C120	-	6	1	LINE 1: WORKROOM
1	C121	-	6	1	LINE 1: MEETING LINE 2: ROOM
2	C122	-	6	1	LINE 1: BOOK LINE 2: ROOM
1	C123	-	6	1	LINE 1: MEETING LINE 2: ROOM
1	C124	-	6	1	LINE 1: COMPUTER LINE 2: LAB
1	C126	LINE 1: 10	1	1	-
1	C127	LINE 1: 11	1	7	-
1	C128	LINE 1: 12	1	1	-
1	C129	LINE 1: 13	1	1	-
1	C130	LINE 1: 14	1	7	-
1	C131	LINE 1: 15	1	1	-
1	C132	-	6	1	LINE 1: GIRLS LINE 2: RESTROOM
1	C133	-	5	1	LINE 1: MECHANICAL
1	C134	-	6	1	LINE 1: BOYS LINE 2: RESTROOM
1	C136	-	5	1	LINE 1: CUSTODIAL
1	C137	-	7	1	LINE 1: OFFICE
1	C138	-	6	1	LINE 1: CONFERENCE LINE 2: ROOM
1	C139	-	7	1	LINE 1: OFFICE

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND

2017 RENOVATIONS

ELEMENTARY SCHOOLS

WOODCREEK ELEMENTARY SCHOOL

SIGNAGE SCHEDULE AND DETAILS

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 30, 2016

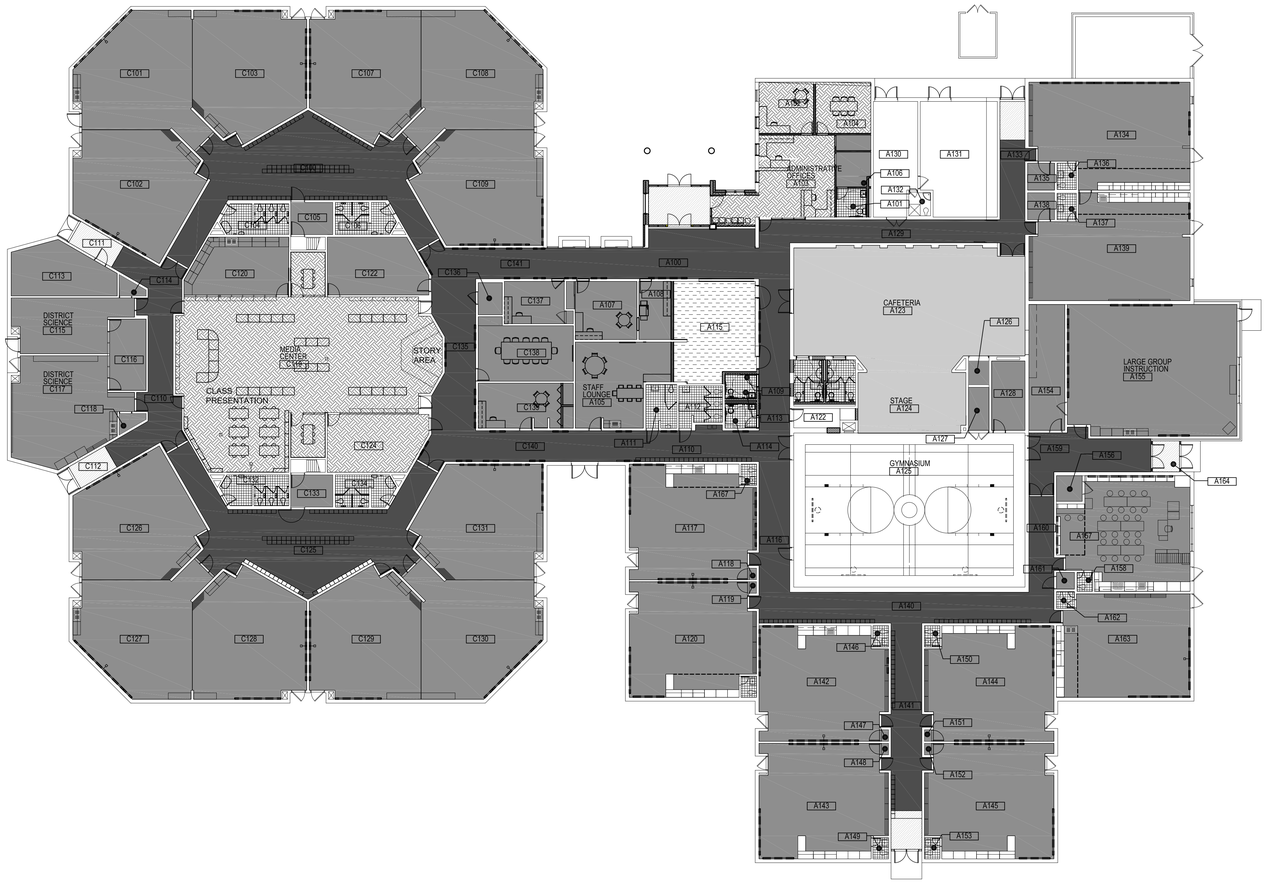
SHEET NO.

A8.2

JOB NO. 161664B

TILE FLOORING LEGEND

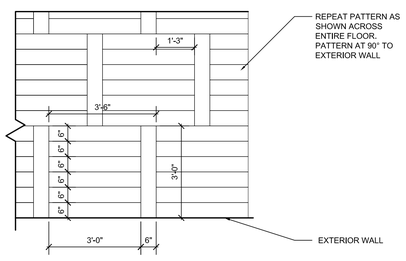
- 6"X36" WOOD PLANK TILE DESIGN - LAID OUT IN PATTERN IN DETAIL 2/A8.3WC.
- 6"X36" AND 4"X36" WOOD PLANK TILE DESIGN - LAID OUT IN "RANDOM" PATTERN REPRESENTED BY DETAIL 4/A8.3WC.
- 18"X18" STONE TILE DESIGN - LAID OUT IN QUARTER-TURN PATTERN REPRESENTED BY DETAIL 3/A8.3WC.
- WALKOFF CARPET
- CERAMIC TILE FLOOR
- QUARRY TILE FLOOR
- CARPET



1 / - COMPOSITE FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"

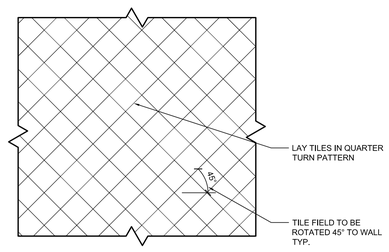
N



NOTE: COLOR TO BE DETERMINED.
(1 FIELD, UP TO 3 ACCENTS)

2 / A8.3WC CLASSROOM FLOOR PATTERN DETAIL

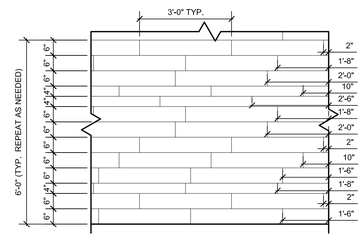
SCALE: 1/2" = 1'-0"



NOTE: COLOR TO BE DETERMINED.
(1 FIELD, UP TO 3 ACCENTS)

3 / A8.3WC CAFETERIA FLOOR PATTERN DETAIL

SCALE: 1/4" = 1'-0"



NOTE: COLOR TO BE DETERMINED.
(1 FIELD, UP TO 3 ACCENTS)

4 / A8.3WC CORRIDOR FLOOR PATTERN DETAIL

SCALE: 3/32" = 1'-0"

WA

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
ELEMENTARY SCHOOLS

WOOD CREEK ELEMENTARY SCHOOL

COMPOSITE FLOOR PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY NJL
CHECKED BY BJS

REVISIONS

DATE: November 30, 2016

SHEET NO.

A8.3WC

JOB NO. 161664B

MECHANICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
A	COMPRESSED AIR
A(___#)	COMPRESSED AIR (SPECIFIC PSIG)
AAV	AUTOMATIC AIR VENT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AD	AREA DRAIN
AE	AIR EXTRACTOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AMP	AMPERE
APD	AIR PRESSURE DROP
AR	ARGON
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
AUX	AUXILIARY
AV	ACID VENT
AVTR	ACID VENT THROUGH ROOF
AW	ACID WASTE
BAS	BUILDING AUTOMATION SYSTEM
BCU	BLOWER COIL UNIT
BDD	BACKDRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BWV	BACKWATER VALVE
C	COMMON
CAP	CAPACITY
CAV	CONSTANT AIR VOLUME
CB	CATCH BASIN
CC	COOLING COIL
CD	COLD DECK
CD	CONDENSATE DRAIN
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHW	CHILLED WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	COOLING
CNDS	CONDENSATE
CNDS (___#)	CONDENSATE (SPECIFIC PSIG)
CO	CLEAN OUT
CO2	CARBON DIOXIDE
CONT	CONTINUATION OR CONTINUED
CONTR	CONTRACTOR
CONV	CONVECTOR
COP	COEFFICIENT OF PERFORMACE
COS	CENTRAL OPERATOR STATION
CP	CIRCULATING PUMP
CRU	CONDENSATE RETURN UNIT
CSS	CLINICAL SERVICE SINK
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CW	DOMESTIC COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D&T	DRIP AND TRAP
DA	DISCHARGE AIR
DAT	DISCHARGE AIR TEMPERATURE
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DFU	DRAINAGE FIXTURE UNITS
DIA	DIAMETER
DMPR	DAMPER
D/N	DAY/NIGHT
DN	DOWN
DNZ	DOWNSPOUT NOZZLE
DS	DUCT SILENCER
DT	DRAIN TILE
DTC	DRAIN TILE CONNECTION
DWH	DOMESTIC WATER HEATER
DWG	DRAWING
(E)	EXISTING
E	EXHAUST GRILLE OR REGISTER
EA	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	EXPANSION COMPENSATOR
ECUH	ELECTRIC CABINET UNIT HEATER
EDB	ENTERING DRY BULB
EER	ENERGY EFFICIENCY RATIO
EES	EMERGENCY EYE WASH / SHOWER
EEW	EMERGENCY EYE WASH
EF	EXHAUST FAN
EFF	EFFICIENCY
EHC	ELECTRIC HEATING COIL
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EMS	ENERGY MANAGEMENT SYSTEM
ERL	ENERGY RECOVERY LOOP
ERLR	ENERGY RECOVERY LOOP RETURN
ERLS	ENERGY RECOVERY LOOP SUPPLY
ERU	ENERGY RECOVERY UNIT
ESH	EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	FIRE PROTECTION
°F	DEGREES FAHRENHEIT
F&B	FACE AND BYPASS
F&T	FLOAT AND THERMOSTATIC
FA	FACE AREA
FCU	FAN COIL UNIT

ABBREVIATION	DESCRIPTION
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FHV	FIRE HOSE VALVE
FLA	FULL LOAD AMPS
FLR	FLOOR
FM	FLOW MEASURING DEVICE
FMS	FLOW MEASURING STATION
FPM	FEET PER MINUTE
FP	FIRE PUMP
FPTU	FAN POWERED (AIR) TERMINAL UNIT
FS	FLOOR SINK
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FT	FEET
FTR	FINNED TUBE RADIATION
FV	FACE VELOCITY
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
GRH	GRAVITY RELIEF HOOD
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HYDROGEN
HB	HOSE BIBB
HC	HEATING COIL
HD	HOT DECK
HEPA	HIGH EFFICIENCY PARTICULATE ARRESTANCE
HL	HIGH LIMIT
HOA	HAND/OFF/AUTO
HP	HEAT PUMP
HP	HORSEPOWER
HPCW	HIGH PRESSURE DOMESTIC COLD WATER
HPHW	HIGH PRESSURE DOMESTIC HOT WATER
HPHWR	HIGH PRESSURE DOMESTIC HOT WATER RETURN
HPL	HEAT PUMP LOOP
HPLR	HEAT PUMP LOOP RETURN
HPLS	HEAT PUMP LOOP SUPPLY
HR	HOUR
HTG	HEATING
HV	HEATING VENTILATING
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HWH	HOT WATER HEATING
HWHR	HOT WATER HEATING RETURN
HWHS	HOT WATER HEATING SUPPLY
HW	DOMESTIC HOT WATER
HW(___)	DOMESTIC HOT WATER (SPECIFIC TEMP °F)
HWR	DOMESTIC HOT WATER RETURN
HX	HEAT EXCHANGER
HZ	HERTZ
IAQ	INDOOR AIR QUALITY
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IH	INTAKE HOOD
IN	INCHES
IR	INFRARED HEATER
IW	INDIRECT WASTE
JC	JANITOR'S CLOSET
JP	JOCKEY PUMP
KW	KILOWATT
KWH	KILOWATT-HOUR
LAT	LEAVING AIR TEMPERATURE
LAB	LABORATORY
LAV	LAVATORY
LBS	POUNDS
LDB	LEAVING DRY BULB
LL	LOW LIMIT
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
LRA	LOCKED ROTOR AMPS
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MA	MIXED AIR
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCA	MEDICAL COMPRESSED AIR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MMBH	MILLION BRITISH THERMAL UNITS PER HOUR
M/S	MOTOR STARTER
MTD	MOUNTED
MTR	MOTOR
MV	MANUAL AIR VENT
MVAC	MEDICAL VACUUM
N	NITROGEN
N2O	NITROUS OXIDE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NCTC	NORMALLY CLOSED TIMED CLOSED
NCTO	NORMALLY CLOSED TIMED OPEN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NOTC	NORMALLY OPEN TIMED CLOSED
NOTO	NORMALLY OPEN TIMED OPEN
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPCW	NON POTABLE COLD WATER
O	OXYGEN
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER/CENTER TO CENTER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OL	OVERLOAD
ORC	OVERFLOW RAIN CONDUCTOR
ORD	OVERFLOW ROOF DRAIN
OS&Y	OUTSIDE SCREW AND YOKE
OV	OUTLET VELOCITY
PACU	PACKAGED AIR CONDITIONING UNIT
PBD	PARALLEL BLADE DAMPER
PC	PUMPED CONDENSATE
PCW	PROCESS COOLING WATER
PCWR	PROCESS COOLING WATER RETURN
PCWS	PROCESS COOLING WATER SUPPLY
PD	PRESSURE DROP (FEET OF WATER)
PH	PERIMETER HEAT
PHR	PERIMETER HEAT RETURN
PHS	PERIMETER HEAT SUPPLY
PNL	PANEL
PPM	PARTS PER MILLION
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSAN	PUMPED SANITARY
PST	PUMPED STORM
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PW	PURIFIED WATER
PWR	PURIFIED WATER RETURN
PWS	PURIFIED WATER SUPPLY
(R)	RELOCATED
R	RETURN GRILLE OR REGISTER
RA	RETURN AIR
RAT	RETURN AIR TEMPERATURE
RC	RAIN CONDUCTOR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REQD	REQUIRED
REF	ROOF EXHAUST FAN
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RLFA	RELIEF AIR
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
S	SUPPLY AIR DIFFUSER OR GRILLE
SA	SOUND ATTENUATOR
SA	SUPPLY AIR
SAN	SANITARY WASTE
SAT	SUPPLY AIR TEMPERATURE
SECT	SECTION
SF	SUPPLY FAN
SH	SHOWER
SK	SINK
SMR	SNOW MELT RETURN
SMS	SNOW MELT SUPPLY
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SQFT	SQUARE FOOT/SQUARE FEET
S/S	START/STOP
SS	SERVICE SINK
ST	STORM
STD	STANDARD
STK	STACK
STM	STEAM
STM(___#)	STEAM (SPECIFIC PSIG)
S/W	SUMMER/WINTER
SW	SWITCH
T	TRANSFER GRILLE
TC	TEMPERATURE CONTROL
TC	TEMPERING COIL
TCP	TEMPERATURE CONTROL PANEL
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TEMP	TEMPORARY
TH	TERMINAL HEATING
THA	TOTAL HEAT ABSORBED
THR	TERMINAL HEATING RETURN
THR	TOTAL HEAT REJECTED
THS	TERMINAL HEATING SUPPLY
TSP	TOTAL STATIC PRESSURE
TU	(AIR) TERMINAL UNIT
TV	TURNING VANES
TYP	TYPICAL
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UON	UNLESS OTHERWISE NOTED
UR	URINAL
UV	UNIT VENTILATOR
V	VALVE
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VD	VOLUME DAMPER (MANUALLY ADJUSTABLE)
VOL	VOLUME
VFC	VARIABLE FREQUENCY CONTROLLER
VTR	VENT THROUGH ROOF
VTU	VENTURI TERMINAL UNIT
VUV	VERTICAL UNIT VENTILATOR
W	WASTE
W&V	WASTE AND VENT
WB	WET BULB
WC	WATER CLOSET
WC	WATER COLUMN
WG	WATER GAUGE
WH	WALL HYDRANT
WPD	WATER PRESSURE DROP
WT	WEIGHT
XFMR	TRANSFORMER

TEMPERATURE CONTROL - PARTIAL SYMBOLS LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CO2	CARBON DIOXIDE SENSOR	OS	OCCUPANCY SENSOR
CO	CARBON MONOXIDE SENSOR	PT	PRESSURE TRANSMITTER
DPT	DIFFERENTIAL PRESSURE TRANSMITTER	SP	STATIC PRESSURE SENSOR OR PROBE
FM	FLOW METER		VALVE - 2 WAY CONTROL VALVE
	GUARD FOR STAT OR SENSOR		VALVE - 3 WAY CONTROL VALVE
H	HUMIDISTAT OR HUMIDITY SENSOR (AS DEFINED ON TC DRAWINGS)	T	THERMOSTAT OR TEMPERATURE SENSOR (AS DEFINED ON TC DRAWINGS)

NOTE: LIST OF ADDITIONAL SYMBOLS & ABBREVIATIONS ASSOCIATED WITH TEMPERATURE CONTROLS ARE IDENTIFIED ON TC DRAWINGS.

MECHANICAL SYMBOL LIST

PIPING SYMBOLS

SYMBOL	DESCRIPTION
AV	AIR VENT - AUTOMATIC
MV	AIR VENT - MANUAL
BFP	BACKFLOW PREVENTER
	CATCH BASIN
	CIRCULATING PUMP
CO	CLEAN OUT - IN FLOOR
CO	CLEAN OUT - FLANGE
	DIRECTION OF FLOW
	DIRECTION OF PITCH - DOWN
	FINNED TUBE RADIATION
	FIRE PROTECTION - SIAMESE CONNECTION - FREE STANDING
	FIRE PROTECTION - SIAMESE CONNECTION - WALL MOUNTED
	FIRE PROTECTION - SPRINKLER HEAD, CONCEALED
	FIRE PROTECTION - SPRINKLER HEAD, PENDANT
	FIRE PROTECTION - SPRINKLER HEAD, UPRIGHT
	FIRE PROTECTION - SPRINKLER HEAD, SIDEWALL
	FLOOR DRAIN
	FLOOR DRAIN - ELEVATION
	FLOOR DRAIN - FUNNEL
	FLOOR DRAIN - FUNNEL, ELEVATION
	FLOW MEASURING DEVICE
FS	FLOW SWITCH
HB	HOSE BIBB
MH	MANHOLE
	OPEN SITE DRAIN
	PIPE - ANCHOR
	PIPE - CAP OR PLUG
	PIPE - ELBOW DOWN
	PIPE - ELBOW UP
	PIPE - EXPANSION JOINT OR COMPENSATOR
	PIPE - FLANGE
	PIPE - HOSE AND BRAID FLEXIBLE CONNECTION
	PIPE - RUBBER FLEXIBLE CONNECTION
	PIPE - GUIDE
	PIPE - TEE DOWN
	PIPE - TEE UP
	PIPE - UNION
P/T	PRESSURE AND TEMPERATURE TEST PLUG
	PRESSURE GAUGE AND COCK
	REDUCER - CONCENTRIC
	REDUCER - ECCENTRIC
	ROOF/OVERFLOW DRAIN
	STEAM TRAP - FLOAT AND THERMOSTATIC
	STEAM TRAP - BUCKET
	STRAINER
	STRAINER WITH BLOW-OFF
	THERMOMETER
	TRAP
	VALVE - ANGLE
	VALVE - BALL
	VALVE - BUTTERFLY
0.5	VALVE - BALANCE (i.e. BALANCE VALVE TO 0.5 GPM)
0.5	VALVE - COMBINATION BALANCE & FLOW MEASURING (i.e. BALANCE VALVE TO 0.5 GPM)
	VALVE - CHECK
	VALVE - SPRING CHECK
	VALVE - GAS (MANUAL)
	VALVE - GLOBE
	VALVE - ISOLATION
	VALVE - NEEDLE
	VALVE - OS&Y
	VALVE - PLUG
	VALVE - PRESSURE REGULATING
	VALVE - PRESSURE REDUCING
	VALVE - PRESSURE RELIEF
	VALVE - PRESSURE & TEMPERATURE RELIEF
VTR	VENT THROUGH ROOF
WH	WALL HYDRANT

DOUBLE LINE PIPING SYMBOLS

SYMBOL	DESCRIPTION
	FLANGE
	FLEX CONNECTION
	STRAINER - BASKET
	STRAINER - Y TYPE
	VALVE - 2 WAY CONTROL
	VALVE - 3 WAY CONTROL
	VALVE - BUTTERFLY
	VALVE - CHECK
	VALVE - DETECTOR CHECK
	VALVE - OS&Y HORIZONTAL STEM
	VALVE - OS&Y VERTICAL STEM

DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
TU-101	AIR TERMINAL UNIT
TU-101	AIR TERMINAL UNIT WITH HEATING COIL
LTU-101	LABORATORY AIR TERMINAL UNIT
LTU-101	LABORATORY AIR TERMINAL UNIT WITH HEATING COIL
	DAMPER - HORIZONTAL FIRE (EXISTING, NEW)
	DAMPER - HORIZONTAL FIRE / SMOKE (EXISTING, NEW)
	DAMPER - SMOKE (EXISTING, NEW)
	DAMPER - VERTICAL FIRE (EXISTING, NEW)
	DAMPER - VERTICAL FIRE / SMOKE (EXISTING, NEW)
BDD	DAMPER - BACK DRAFT
M	DAMPER - MOTORIZED
	DAMPER - VOLUME (MANUALLY ADJUSTABLE)
	DIFFUSER - BLANK OFF
	DIFFUSER - LINEAR SLOT
	DIFFUSER - SQUARE OR RECTANGULAR
	DUCT CROSS SECTION - SUPPLY
	DUCT CROSS SECTION - RETURN OR EXHAUST
	DUCT CROSS SECTION - EXHAUST
	DUCT - FLEXIBLE CONNECTION
	DUCT - FLEXIBLE DUCT
	DUCT TAKE-OFF - ROUND CONICAL
	DUCT TAKE-OFF - RECTANGULAR WITH SHOE TAP
	ELBOW - RECTANGULAR WITH TURNING VANES
	ELBOW - ROUND SMOOTH RADIUS
	ELBOW DOWN - RECTANGULAR
	ELBOW DOWN - ROUND
	ELBOW UP - RECTANGULAR
	ELBOW UP - ROUND
	FAN - AXIAL
	FAN - CENTRIFUGAL (ELEVATION)
	HEATING COIL
D	INCLINED DROP IN DIRECTION OF AIRFLOW
R	INCLINED RISE IN DIRECTION OF AIRFLOW
	INTAKE OR RELIEF HOOD
	REGISTER - RETURN OR EXHAUST
	REGISTER - RETURN WITH BOOT
	REGISTER - TRANSFER GRILLE
	ROOF EXHAUST FAN
	TRANSITION - CONCENTRIC
	TRANSITION - ECCENTRIC
	UNIT HEATER - HORIZONTAL THROW
	UNIT HEATER - VERTICAL THROW

DOUBLE LINE DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
	DUCT TAKE-OFF - RECTANGULAR WITH SHOE TAP
	DUCT TAKE-OFF - ROUND CONICAL
	ELBOW - RECTANGULAR WITH TURNING VANES
	ELBOW - RECTANGULAR SHORT RADIUS WITH SPLITTER VANES
	ELBOW - ROUND
	ELBOW - RECTANGULAR SMOOTH RADIUS
	ELBOW DOWN - RECTANGULAR
	ELBOW DOWN - ROUND
	ELBOW UP - RECTANGULAR
	ELBOW UP - ROUND
	HEATING COIL
D	INCLINED DROP IN DIRECTION OF AIRFLOW
R	INCLINED RISE IN DIRECTION OF AIRFLOW
	TRANSITION - CONCENTRIC
	TRANSITION - ECCENTRIC

MECHANICAL DRAWING INDEX

SHEET NO.	SHEET TITLE
M0.1WC	MECHANICAL STANDARDS AND DRAWING INDEX
MD1.1AWC	AREA 'A' MECHANICAL DEMOLITION PLAN
MD1.1BWC	AREA 'B' MECHANICAL DEMOLITION PLAN
M2.1AWC	AREA 'A' PLUMBING NEW WORK PLAN
M2.1BWC	AREA 'B' PLUMBING NEW WORK PLAN
M3.1AWC	AREA 'A' HVAC NEW WORK PLAN
M3.1BWC	AREA 'B' HVAC NEW WORK PLAN
M6.1WC	MECHANICAL DETAILS
M7.1WC	MECHANICAL SCHEDULES
M7.2WC	MECHANICAL SCHEDULES
M8.1WC	TEMPERATURE CONTROLS STANDARDS AND GENERAL NOTES
M8.2WC	TEMPERATURE CONTROLS
M8.3WC	TEMPERATURE CONTROLS

STANDARD METHODS OF NOTATION

S-1
10#
350-4
SUPPLY DIFFUSER WITH SCHEDULE TAG "1",
10" DIAMETER NECK SIZE
350 CFM TYPICAL FOR 4

R-1
22x22
640-2
RETURN REGISTER WITH SCHEDULE TAG "1",
22"x 22" NECK SIZE
640 CFM TYPICAL FOR 2
EXHAUST REGISTER E DESIGNATION SIMILAR.

TU-101 — AIR TERMINAL UNIT WITH HEATING COIL NO. 101 WITH SERVICE CLEARANCE SHOWN

LTU-101 — LABORATORY AIR TERMINAL WITH HEATING COIL NO. 101 WITH SERVICE CLEARANCE SHOWN

8 — PIPE DIAMETER NOTATION ALL SIZES IN INCHES

8# — 22x10 | 18x14# — DUCT SIZE NOTATION ALL SIZES IN INCHES; OVAL DUCT; RECTANGULAR DUCT

1 — CONSTRUCTION NOTE NUMBER

EF 1 — EQUIPMENT DESIGNATION, (i.e. EXHAUST FAN NUMBER 1)

HW-1 — PIPING RISER DESIGNATION (i.e. HOT WATER RISER NUMBER 1)

NEW SYSTEM COMPONENT
EXISTING SYSTEM COMPONENT TO REMAIN
POINT OF NEW CONNECTION SYMBOL

1 M5.1 — SECTION OR PLAN NUMBER; SHEET WHERE SECTION IS DRAWN

AREA OF ENLARGEMENT
PLAN NUMBER
1 M5.1 — SHEET WHERE ENLARGED PLAN IS DRAWN

1 M5.1 — SECTION OR PLAN NUMBER

SECTION OR ENLARGED PLAN

SCALE: 1/8" = 1' - 0"

SHEET WHERE SECTION IS CUT OR ENLARGED PLAN IS REFERENCED

SHEET M1.0 / SHEET M1.1 — MATCH LINE

HEAVY LINE WEIGHT INDICATES NEW WORK

LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT OR REFERENCED INFORMATION

GRAY LINE INDICATES BACKGROUND INFORMATION

DASHED LINES INDICATE PIPING ROUTED BELOW SLAB OR GRADE

HATCH MARKS INDICATE EQUIPMENT OR MATERIALS TO BE DISCONNECTED AND REMOVED.

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

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MECHANICAL STANDARDS AND DRAWING INDEX

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
M0.1WC

JOB NO. 161664A

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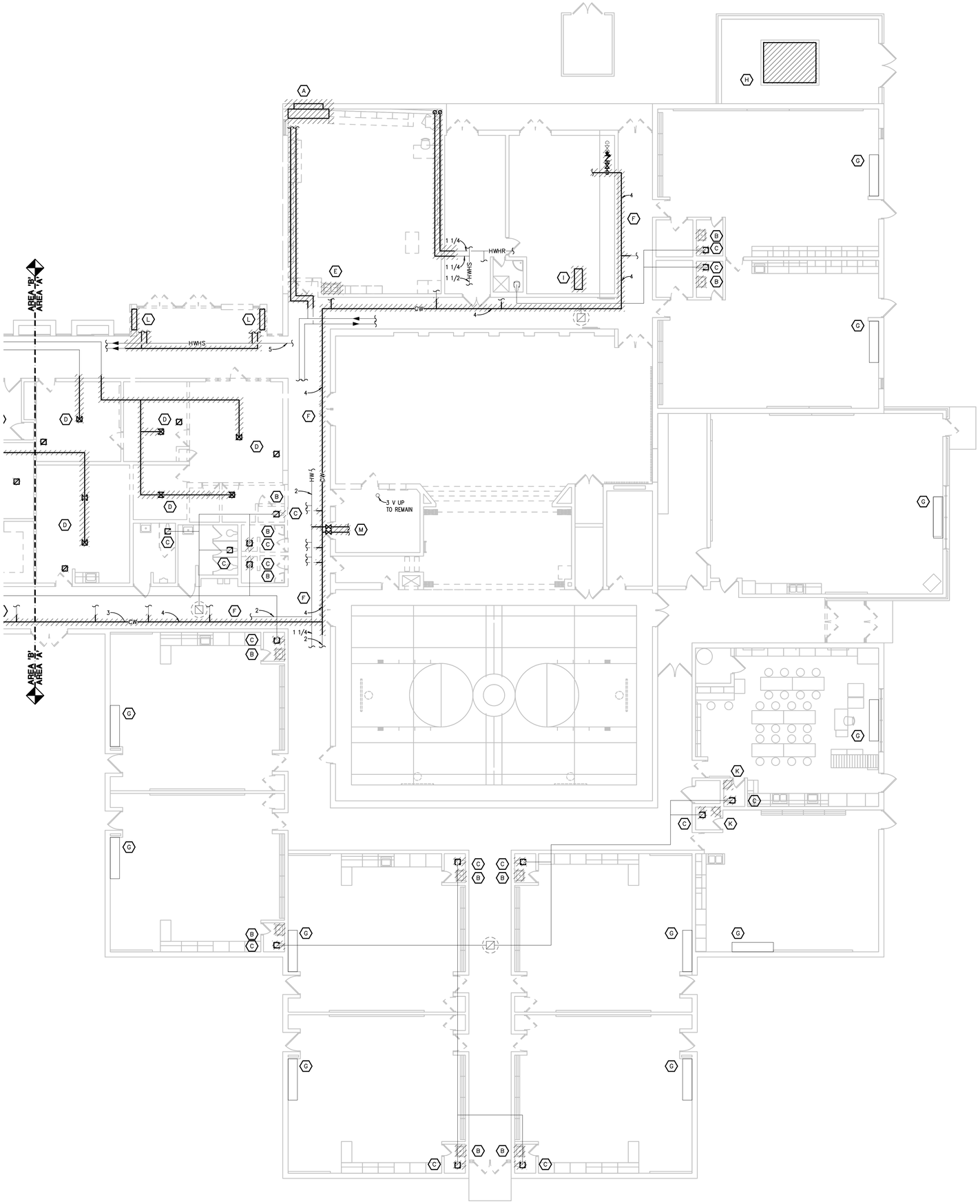


AREA 'A' MECHANICAL DEMOLITION PLAN

SCALE: 1/8" = 1' - 0"

MECHANICAL GENERAL DEMOLITION NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. ACTUAL ROUTING AND SIZES OF EXISTING PIPING AND DUCTWORK MIGHT DIFFER TO A LIMITED EXTENT FROM WHAT IS SHOWN. MAJOR DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

DEMOLITION KEY NOTES:

A. REMOVE EXISTING UNIT VENTILATOR AND CONTROLS COMPLETE. REMOVE AND PATCH WALL TO MATCH EXISTING CONDITIONS. REMOVE HOT WATER HEATING AND CHILLED WATER PIPING BACK TO MAIN AND CAP.

B. REMOVE EXISTING PLUMBING FIXTURES. PREPARE PIPING FOR NEW WORK.

C. REMOVE EXISTING EXHAUST GRILLES. PREPARE DUCTWORK FOR NEW WORK. PROVIDE PRE-DEMOLITION AIR FLOW READINGS.

D. REMOVE EXISTING DUCTWORK, GRILLES, AND DIFFUSERS COMPLETE. PROVIDE PRE-DEMOLITION AIR FLOW READINGS.

E. REMOVE EXISTING SINK COMPLETE. CAP PIPING AT MAINS.

F. REMOVE GALVANIZED DOMESTIC WATER PIPING COMPLETE. PREPARE COPPER PIPING FOR NEW WORK.

G. REMOVE EXISTING 2-WAY HOT WATER HEATING AND CHILLED WATER CONTROL VALVE AND ACTUATOR FROM EXISTING UNIT VENTILATOR. PREPARE PIPING FOR NEW VALVE. PROVIDE PRE-DEMOLITION WATER FLOW READINGS FOR HWH AND CHW.

H. REMOVE EXISTING CHILLER AND EXTERIOR PIPE INSULATION COMPLETE. PREPARE PIPING FOR NEW WORK.

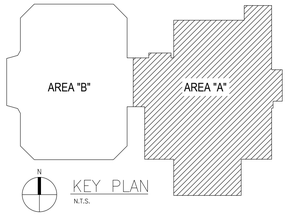
I. REMOVE EXISTING CHILLED WATER PUMP COMPLETE. PREPARE CHILLED WATER PIPING FOR NEW WORK.

J. REMOVE EXISTING FLOOR MOUNTED URINALS AND ASSOCIATED P-TRAP. PREPARE PIPING FOR NEW WORK.

K. REMOVE/SALVAGE EXISTING CORNER SINK. PREPARE SINK AND PIPING FOR NEW WORK. REMOVE EXISTING WATER CLOSET. PREPARE PIPING FOR NEW WORK.

L. REMOVE EXISTING CABINET UNIT HEATER AND CONTROLS COMPLETE. REMOVE HWHS/R BACK AS INDICATED. PREPARE HWHS/R PIPING FOR NEW WORK.

M. REMOVE CW AND HW PIPING BACK TO MAIN AND PREPARE PIPING FOR NEW WORK.



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AREA 'A' MECHANICAL DEMOLITION PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
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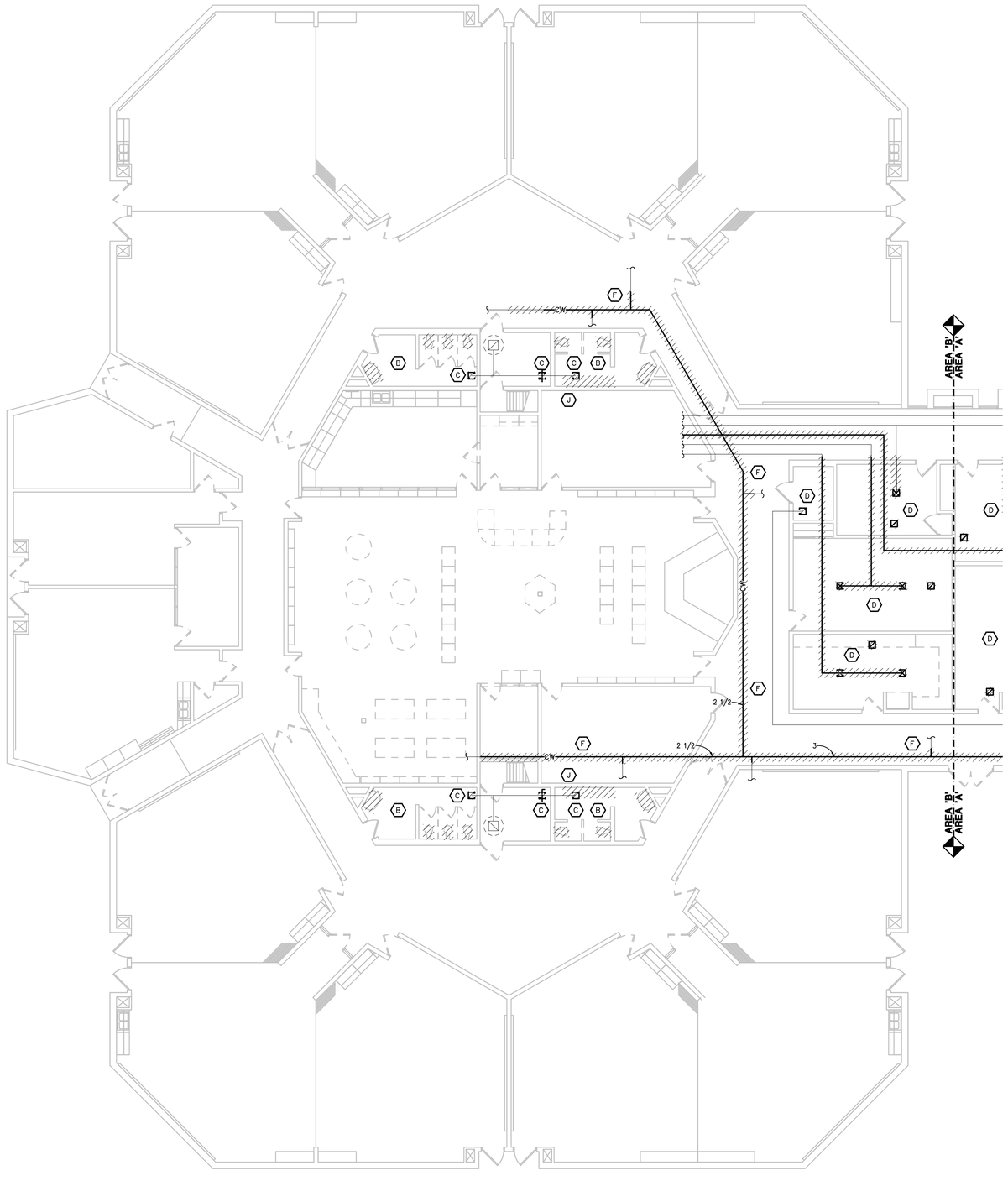

AREA 'B' MECHANICAL DEMOLITION PLAN

SCALE: 1/8" = 1' - 0"

MECHANICAL GENERAL DEMOLITION NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. ACTUAL ROUTING AND SIZES OF EXISTING PIPING AND DUCTWORK MIGHT DIFFER TO A LIMITED EXTENT FROM WHAT IS SHOWN. MAJOR DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

DEMOLITION KEY NOTES:

A. REMOVE EXISTING UNIT VENTILATOR AND CONTROLS COMPLETE. REMOVE AND PATCH WALL TO MATCH EXISTING CONDITIONS. REMOVE HOT WATER HEATING AND CHILLED WATER PIPING BACK TO MAIN AND CAP.

B. REMOVE EXISTING PLUMBING FIXTURES. PREPARE PIPING FOR NEW WORK.

C. REMOVE EXISTING EXHAUST GRILLES. PREPARE DUCTWORK FOR NEW WORK. PROVIDE PRE-DEMOLITION AIR FLOW READINGS.

D. REMOVE EXISTING DUCTWORK, GRILLES, AND DIFFUSERS COMPLETE. PROVIDE PRE-DEMOLITION AIR FLOW READINGS.

E. REMOVE EXISTING SINK COMPLETE. CAP PIPING AT MAINS.

F. REMOVE GALVANIZED DOMESTIC WATER PIPING COMPLETE. PREPARE COPPER PIPING FOR NEW WORK.

G. REMOVE EXISTING 2-WAY HOT WATER HEATING AND CHILLED WATER CONTROL VALVE AND ACTUATOR FROM EXISTING UNIT VENTILATOR. PREPARE PIPING FOR NEW VALVE. PROVIDE PRE-DEMOLITION WATER FLOW READINGS FOR HWH AND CHW.

H. REMOVE EXISTING CHILLER AND EXTERIOR PIPE INSULATION COMPLETE. PREPARE PIPING FOR NEW WORK.

I. REMOVE EXISTING CHILLED WATER PUMP COMPLETE. PREPARE CHILLED WATER PIPING FOR NEW WORK.

J. REMOVE EXISTING FLOOR MOUNTED URINALS AND ASSOCIATED P-TRAP. PREPARE PIPING FOR NEW WORK.

K. REMOVE/SALVAGE EXISTING CORNER SINK. PREPARE SINK AND PIPING FOR NEW WORK. REMOVE EXISTING WATER CLOSET. PREPARE PIPING FOR NEW WORK.

L. REMOVE EXISTING CABINET UNIT HEATER AND CONTROLS COMPLETE. REMOVE HWMS/R BACK AS INDICATED. PREPARE HWHS/R PIPING FOR NEW WORK.

M. REMOVE CW AND HW PIPING BACK TO MAIN AND PREPARE PIPING FOR NEW WORK.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
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WOODCREEK ELEMENTARY SCHOOL

AREA B: MECHANICAL DEMOLITION PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

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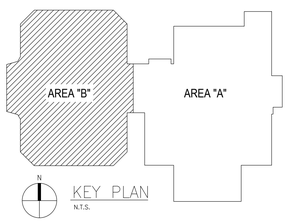
JOB NO. 161664A



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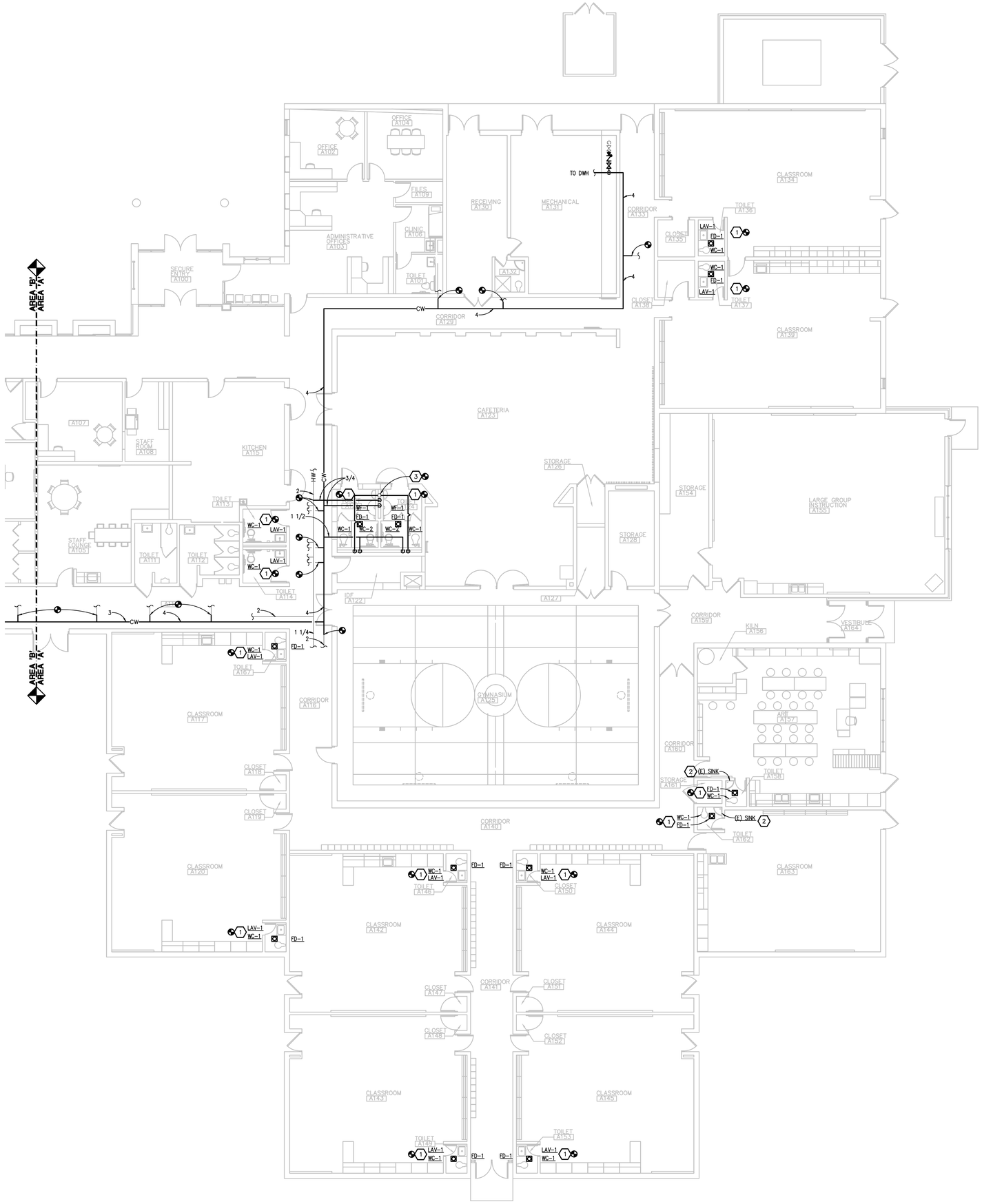


AREA 'A' PLUMBING NEW WORK PLAN

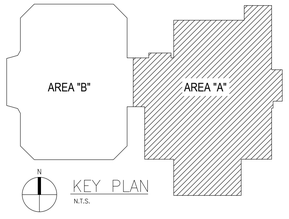
SCALE: 1/8" = 1' - 0"

PLUMBING GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
7. HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
8. PLUMBING VENT PIPING THROUGH ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF PARAPET.
9. PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
10. MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".

CONSTRUCTION KEY NOTES:

1. CONNECT NEW PLUMBING FIXTURE TO EXISTING SAN, VENT, CW, AND HW PIPING. EXTEND PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW FIXTURES.
2. RECONNECT EXISTING SINK TO EXISTING SAN, VENT, CW, AND HW PIPING.. EXTEND/MODIFY EXISTING PIPING AS REQUIRED TO FACILITATE THE RECONNECTION OF EXISTING FIXTURES..
3. CONNECT NEW VENT PIPING TO EXISTING 3 VENT THRU ROOF.



KEY PLAN
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AREA A: PLUMBING NEW WORK PLAN

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DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
M2.1AWC

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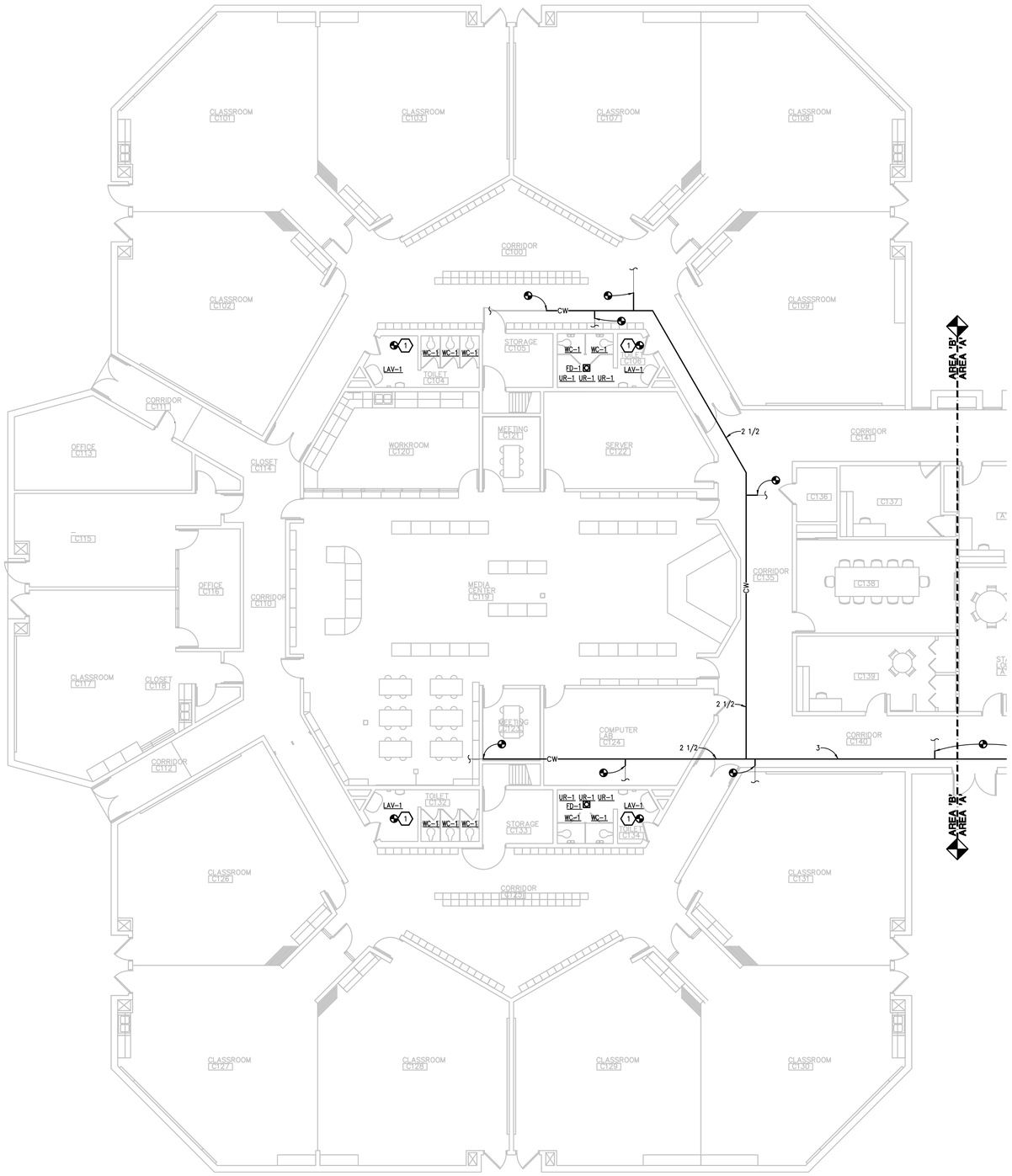


AREA 'B' PLUMBING NEW WORK PLAN

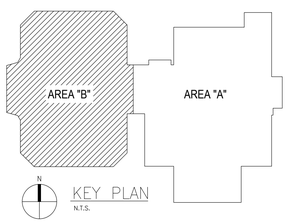
SCALE: 1/8" = 1' - 0"

PLUMBING GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
7. HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
8. PLUMBING VENT PIPING THROUGH ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF PARAPET.
9. PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
10. MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".

CONSTRUCTION KEY NOTES:

1. CONNECT NEW PLUMBING FIXTURE TO EXISTING SAN, VENT, CW, AND HW PIPING. EXTEND PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW FIXTURES.
2. RECONNECT EXISTING SINK TO EXISTING SAN, VENT, CW, AND HW PIPING.. EXTEND/MODIFY EXISTING PIPING AS REQUIRED TO FACILITATE THE RECONNECTION OF EXISTING FIXTURES..
3. CONNECT NEW VENT PIPING TO EXISTING 3 VENT THRU ROOF.



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PBA Project No.: 795.01140.07

FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

AREA B: PLUMBING NEW WORK PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
M2.1BWC

JOB NO: 161664A

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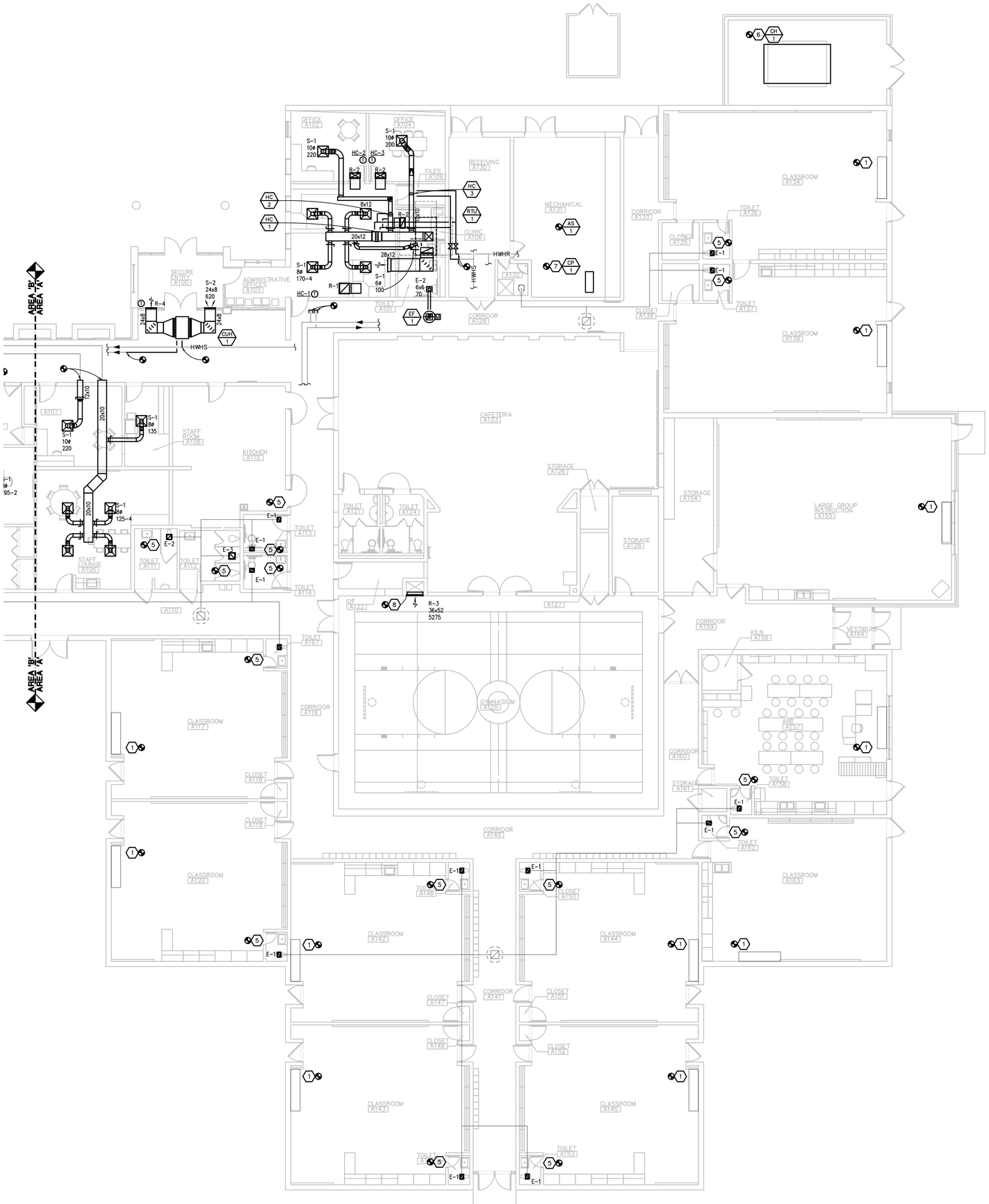
THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.



AREA 'A' HVAC NEW WORK PLAN

SCALE: 1/8" = 1' - 0"

HVAC GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. SUBMIT PROPOSED METHODS OF ANCHORING AND GUIDING PIPING SYSTEMS TO STRUCTURAL ENGINEER FOR APPROVAL.
7. COORDINATE LOCATION OF DUCT-MOUNTED HYDRONIC DEVICES WITH SHEET METAL TRADES.
8. BRANCH PIPING SERVING TERMINAL UNIT HEATING COILS OR RADIANT CEILING PANELS SHALL BE 3/4" UNLESS OTHERWISE NOTED. BRANCH PIPING SERVING MORE THAN ONE TERMINAL UNIT HEATING COIL SHALL BE 1" UNLESS OTHERWISE NOTED. BRANCH PIPING SERVING HOT WATER UNIT HEATERS AND CABINET UNIT HEATERS SHALL BE 1" UNLESS OTHERWISE NOTED.
9. MOUNT THERMOSTATS 48" A.F.F., UNLESS OTHERWISE NOTED. LOCATE AS CLOSE AS POSSIBLE TO DOOR WHEN INDICATED NEAR DOOR. COORDINATE EXACT LOCATION WITH ALL OTHER TRADES.
10. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONED LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.

CONSTRUCTION KEY NOTES:

1. PROVIDE NEW HOT WATER HEATING AND CHILLED WATER CONTROL VALVES IN EXISTING UNIT VENTILATOR HOUSING. BRUSH/VACUUM HEATING AND COOLING COILS, STRAIGHTEN FINS, AND VACUUM CLEAN UNIT VENTILATOR HOUSING. SNAKE EXISTING CONDENSATE PIPE AND PROVIDE NEW COPPER ELBOW ON EXTERIOR TERMINATION. REFER TO FLOOR PLANS FOR TYPE OF VALVE (2-WAY OR 3-WAY).
2. REWORK HVAC IN NEW CONFERENCE ROOMS AS NECESSARY.
3. PROVIDE NEW 3 TON ROOFTOP UNIT, DUCT MOUNTED HEATING COILS, HOT WATER HEAT PIPING, DUCTWORK, AND DIFFUSERS FOR NEW MAIN OFFICE.
4. PROVIDE NEW CABINET UNIT HEATER FOR NEW SECURED ENTRANCE. EXTEND/MODIFY EXISTING HOT WATER HEATING PIPING FOR NEW CONNECTION.
5. RE-BALANCE DIFFUSER/GRILLE TO PRE-DEMOLITION AIR FLOW READINGS.
6. CONNECT NEW CHILLER TO EXISTING CHILLED WATER. PROVIDE NEW INSULATION TO EXTERIOR PIPING. REFER TO CHILLED WATER SYSTEM PIPING DIAGRAM ON SHEET M6.1.
7. CONNECT NEW CHILLED WATER CIRCULATION PUMP TO EXISTING CHILLED WATER PIPING. REFER TO CHILLED WATER SYSTEM PIPING DIAGRAM ON SHEET M6.1.
8. LOCATE RETURN GRILLE 24" ABOVE FINISHED FLOOR.
9. RE-BALANCE ZONE 5 MANUAL DAMPER TO 640 CFM.
10. RE-BALANCE ZONE 4 MANUAL DAMPER TO 405 CFM.
11. CAP ZONE 3 SUPPLY DUCTWORK AT MANUAL DAMPER..
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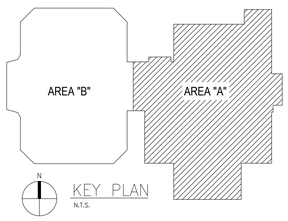

KEY PLAN
N.T.S.

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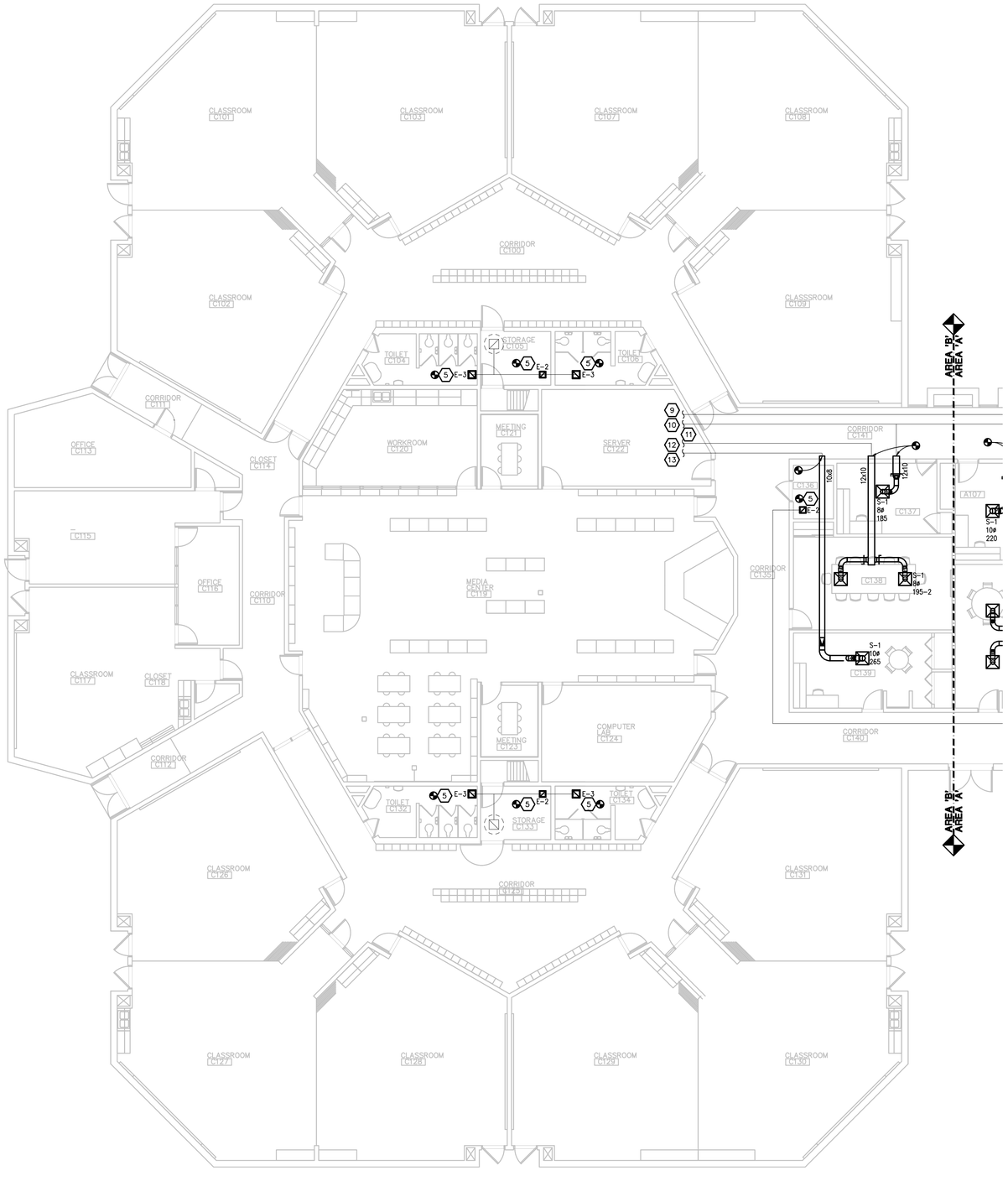

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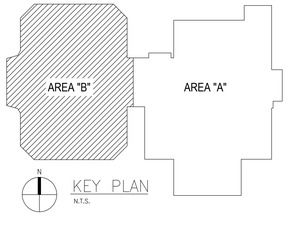

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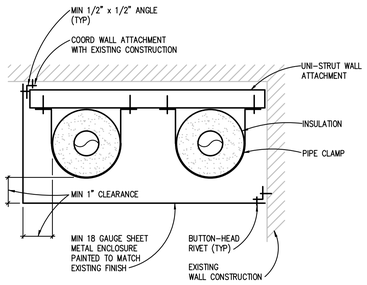
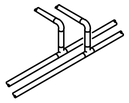
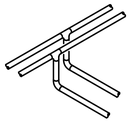


PIPE ENCLOSURE DETAIL
NO SCALE



BRANCH CONNECTION OFF TOP

APPLIES TO THE FOLLOWING SYSTEMS:
DOMESTIC WATER
STEAM & CONDENSATE
LABORATORY GASES
LABORATORY VACUUM
COMPRESSED AIR
NATURAL GAS

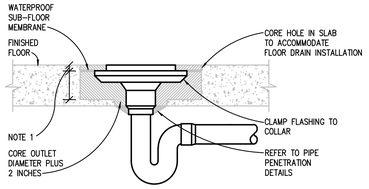


BRANCH CONNECTION OFF BOTTOM

APPLIES TO THE FOLLOWING SYSTEMS:
HOT WATER HEATING
CHILLED WATER
CONDENSER WATER
ENERGY RECOVERY
PROCESS COOLING WATER

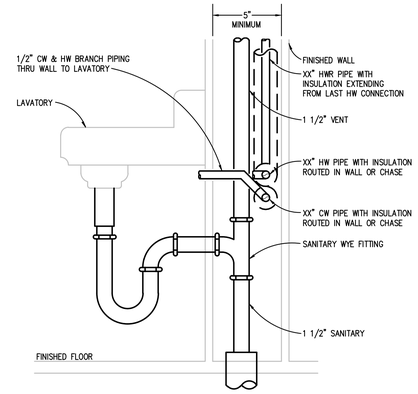
NOTE: BOTTOM AS INDICATED OR SIDE CONNECTION IS ACCEPTABLE. CONNECTION ABOVE CENTERLINE OF MAINS IS NOT ACCEPTABLE.

TYPICAL BRANCH TAKE-OFF CONNECTION PIPING DETAIL
NO SCALE



NOTES
1. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR THICKNESS AND FINISHES.
2. WHERE WATERPROOF FLOOR COVERINGS OCCUR, PROVIDE WIDE FLANGE STRAINER AND PLUG SEEPAGE OPENINGS.
3. PROVIDE EXTENSIONS WHERE REQUIRED TO ACCOMMODATE FLOOR THICKNESS.

FLOOR DRAIN DETAIL (EXISTING FLOORS)
NO SCALE

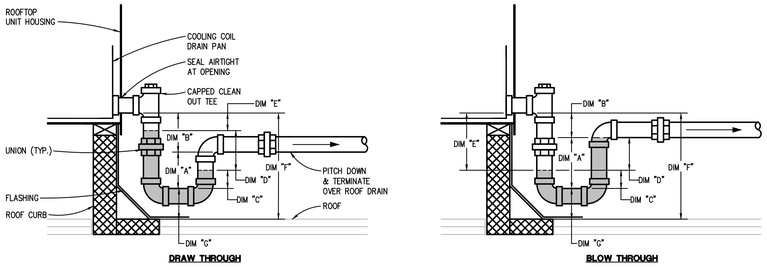


TYPICAL LAVATORY DETAIL
NO SCALE

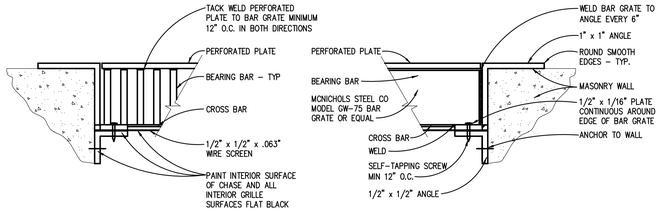
TRAP DIMENSION TABLE

TYPE OF SYSTEM	S.P. AT COIL DRAIN PAN (IN.) (NOTE A)	DIMENSION "A" (INCHES) MIN.	DIMENSION "B" (INCHES)	DIMENSION "C" (INCHES) (TRAP SEAL)	DIMENSION "D" (INCHES)	DIMENSION "E" (INCHES)	DIMENSION "F" (INCHES) DRAIN PIPE SIZE (INCHES)			
							1 1/2	2	2 1/2, 3	4
DRAW THROUGH	-5.1 TO -6	5.0	5.0	2	6	2	13.0	14.0	15.0	16.0
	-4.1 TO -5	4.5	4.5	2	5	2	12.0	13.0	14.0	15.0
	-3.1 TO -4	4.0	4.0	2	4	2	11.0	12.0	13.0	14.0
	-2.1 TO -3	3.5	3.5	2	3	2	10.0	11.0	12.0	13.0
	UP TO -2	3.0	3.0	2	2	2	9.0	10.0	11.0	12.0
BLOW THROUGH	UP TO +2	4.0	2.0	2	2	4	9.0	10.0	11.0	12.0
	+2.1 TO +3	5.0	2.0	2	3	5	10.0	11.0	12.0	13.0
	+3.1 TO +4	6.0	2.0	2	4	6	11.0	12.0	13.0	14.0
	+4.1 TO +5	7.0	2.0	2	5	7	12.0	13.0	14.0	15.0
	+5.1 TO +6	8.0	2.0	2	6	8	13.0	14.0	15.0	16.0

NOTES: A. REFER TO ROOFTOP AIR HANDLING UNIT (COMMERCIAL, UNITARY, MODULAR) SCHEDULE FOR (-) OR (+) STATIC PRESSURE AT COIL DRAIN PAN.
B. ENERGY RECOVERY UNIT HEAT EXCHANGER CONDENSATE PAN TRAP PIPING OUTSIDE CASING SHALL BE INSULATED AND HEAT TRACED.
C. DIMENSION "G" IS MIN: 3" FOR UP TO 1 1/2" DRAIN PIPE
4" FOR 2" DRAIN PIPE
5" FOR 2 1/2" OR 3" DRAIN PIPE
6" FOR 4" DRAIN PIPE
D. PROVIDE ROOF CURB WITH ADEQUATE HEIGHT TO MEET DIMENSION "F"

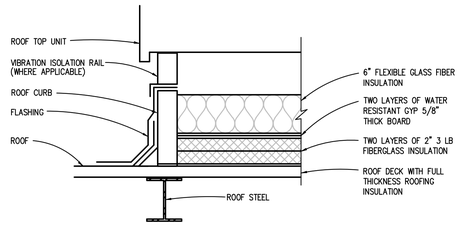


ROOFTOP AIR HANDLING UNIT CONDENSATE DRAIN PAN TRAP DETAIL
NO SCALE



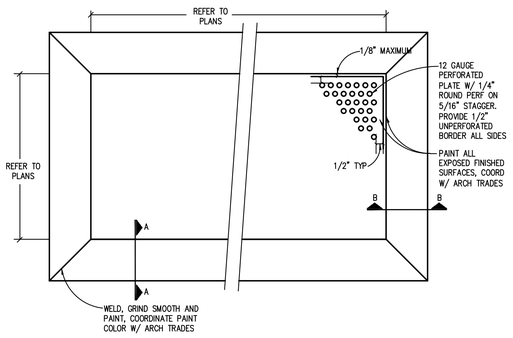
SECTION "B-B"
NO SCALE

SECTION "A-A"
NO SCALE



NOTE: ALL DUCT, PIPING, OR ELECTRICAL CONNECTIONS TO UNIT BELOW CURB SHALL HAVE FLEXIBLE CONNECTIONS. CUT INSULATION, GYP BOARD, ROOFING INSULATION, AND METAL DECKING PENETRATIONS TIGHT TO ITEM PENETRATING ROOF. PACK ALL PENETRATION OPENINGS WITH FLEXIBLE GLASS FIBER.

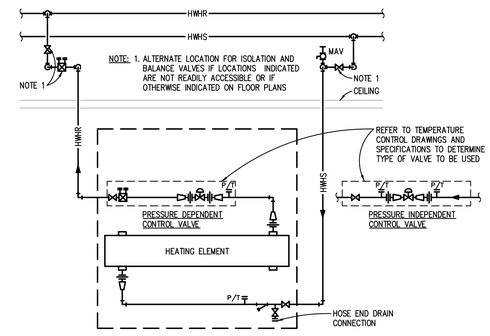
ROOF TOP UNIT CURB DETAIL
NO SCALE



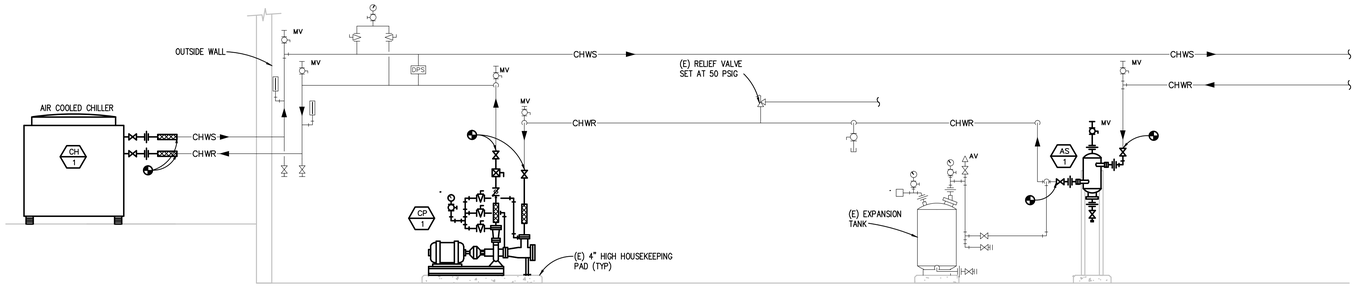
NOTES:
GRIND AND DEBURR ALL SURFACES PRIOR TO APPLYING FINISH.

HEAVY DUTY RETURN AIR GRILLE DETAIL - R-3
NO SCALE

PROVIDE MANUAL VENT AT ALL LOCATIONS WHERE BRANCH PIPING DROPS DOWN IN DIRECTION OF FLOW, INCLUDING HWHR CONNECTION TO MAIN IF CONNECTION IS MADE ABOVE HORIZONTAL



DOWNFEED CONV. OR CUH WITH TWO-WAY CONTROL VALVE PIPING DIAGRAM
NO SCALE



CHILLED WATER SYSTEM PIPING DIAGRAM
NO SCALE

NOTE: CONTRACTOR SHALL DRAIN, FLUSH, AND FILL ENTIRE CHILLED WATER SYSTEM. EXISTING SYSTEM IS 30% PROPYLENE GLYCOL AND IS APPROXIMATELY XXXX GALLONS. HVAC CHEMICAL TREATMENT COMPANY TO VERIFY VOLUME PRIOR TO ORDERING.

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PLUMBING PIPING & VALVE APPLICATION SCHEDULE

	MATERIAL											PRESSURE CONNECTIONS												GRAVITY DWV CONNECTIONS				ISOLATION VALVES					
PIPE SIZE (INCHES)	SOFT COPPER TYPE K	HARD COPPER TYPE L	HARD COPPER TYPE M	CARBON STEEL (SCHED. 40)	CARBON STEEL (SCHED. 80)	CARBON STEEL (STD.)	GALV. STEEL (SCHED. 40)	PEX	PE PIPE	PE SWEATHED CARBON STEEL PIPE	CSST	NO-HUB CISP	PVC TYPE DWV	PP DRAINAGE PIPE	COPPER TYPE DWV	DUCTILE IRON PIPE	SOLDERED	BRAZED	WELDED	THREADED	FLANGED	GROOVED	INSERT & CRIMP	FUSION	PRESSURE-SEAL	MECHANICALLY-FORMED TEE	MECHANICAL JOINT	PUSH-ON-JOINT	SOLVENT WELDED	SOLDERED	FUSION	CISPI HUBLESS	HEAVY-DUTY HUBLESS	BALL	AGA BALL	GENERAL SERVICE BUTTERFLY	LUBRICATED PLUG	GATE	KEYED NOTES
ABOVEGROUND DOMESTIC WATER (POTABLE AND NON-POTABLE) ON DISTRIBUTION SIDE OF METER - MIN. WORKING PRESS. & TEMP.: 125 PSIG AT 200 DEG F																																								
UP TO 4		X															X	X			X	X			X	X								X		X			A
6		X															X	X			X	X				X										X			A
ABOVEGROUND SANITARY WASTE & VENT - MIN. WORKING PRESS.: 10-FOOT HEAD OF WATER																																								
1-1/2 TO 15												X																				X								
UNDERGROUND SANITARY WASTE & VENT - MIN. WORKING PRESS.: 10-FOOT HEAD OF WATER																																								
3 TO 12												X																				X								
3 TO 12													X																X											
ABOVEGROUND COLD CONDENSATE DRAIN - MIN. WORKING PRESSURE: 10 FT. HEAD OF WATER																																								
ALL SIZES			X													X	X	X																						
ABOVEGROUND PUMPED COLD CONDENSATE DRAIN - MIN. WORKING PRESSURE: 125 PSIG																																								
UP TO 2			X														X	X																X						
2-1/2 TO 4			X														X	X																		X				

GENERAL NOTES

1. "X" INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A PIPING SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. DISSIMILAR-METAL PIPING JOINTS: CONSTRUCT JOINTS USING DIELECTRIC FITTINGS COMPATIBLE WITH BOTH PIPING MATERIALS.
   a. NPS 2 AND SMALLER: USE DIELECTRIC NIPPLE/WATERWAY.
   b. NPS 2-1/2 AND LARGER: USE DIELECTRIC FLANGE KITS.
3. USE UNIONS OR FLANGES AT VALVE AND EQUIPMENT CONNECTIONS.
4. PLUMBING EQUIPMENT DRAINS, VENTS, SAFETY VALVE PIPING, BLOWDOWN PIPING AND THE LIKE SHALL BE SAME PIPING MATERIAL AS ASSOCIATED PIPING SYSTEM.
5. GROOVED END VALVES MAY BE USED WITH GROOVED PIPING.

KEYED NOTES

A. GROOVED AND PRESSURE SEALED FITTINGS, JOINTS, AND COUPLINGS, IF INDICATED AS AN ACCEPTABLE SELECTION, MAY BE USED IN ACCESSIBLE LOCATIONS ONLY FOR THIS PIPING SYSTEM.
B. JOINTS ARE NOT PERMITTED ON UNDERGROUND WATER PIPING.
C. USE CAST IRON DRAINAGE PATTERN (DURHAM) FITTINGS.
D. INSTALL IN CONTAINMENT JACKET, REFER TO SPECIFICATIONS.
E. USE STEEL WELDING FITTINGS AND WELDED JOINTS IN PLENUM CEILINGS. VALVES, FLANGES, OR UNIONS ARE PROHIBITED.
F. NO JOINTS ALLOWED UNDERGROUND.

ABOVEGROUND PLUMBING PIPE & ACCESSORY INSULATION APPLICATION SCHEDULE

	INSULATION MATERIAL & THICKNESS (INCHES)								FIELD-APPLIED JACKET MATERIAL						
	FLEXIBLE ELASTOMERIC	FIBERGLASS	MINERAL WOOL	POLYISOCYANURATE	PHENOLIC	CELLULAR GLASS	CALCIUM SILICATE		ALUMINUM	STAINLESS STEEL	PVC	SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)	PVDC (INDOOR)	PVDC (OUTDOOR)	KEYED NOTES
INDOOR PIPE SYSTEM AND SIZE (INCHES)															
DOMESTIC COLD WATER	1	1							X		X				A
DOMESTIC HOT WATER SUPPLY & RETURN	1	1							X		X				A
FLOOR DRAINS, TRAPS AND SANITARY DRAIN PIPING WITHIN 10 FEET OF DRAIN RECEIVING CONDENSATE AND EQUIPMENT DRAIN WATER BELOW 60 DEG F	0.75	1							X		X				A

UNLESS OTHERWISE INDICATED OR SCHEDULED, DO NOT INSULATE THE FOLLOWING:
FIRE SUPPRESSION PIPING
UNDERGROUND PIPING
LABORATORY GAS AND VACUUM PIPING
MEDICAL GAS AND VACUUM PIPING
FUEL GAS PIPING
FUEL OIL PIPING

GENERAL NOTES

1. "X" OR THICKNESS IN INCHES INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. INSULATE PIPING WITHIN AIR HANDLING EQUIPMENT THE SAME AS INDOOR PIPING. PROVIDE ALUMINUM OR STAINLESS STEEL JACKET.

KEYED NOTES

A. PROVIDE FIELD APPLIED JACKET FOR PIPING EXPOSED IN EQUIPMENT ROOMS, STORAGE ROOMS, JANITORS CLOSETS, RECEIVING ROOMS, TEST AREAS, CIRCULATION AREAS AND SUCH AREAS SUBJECT TO DAMAGE, WITHIN 10 FEET (3 METERS) OF FINISHED FLOOR.
B. PROVIDE MANUFACTURER'S RECOMMENDED PROTECTIVE COATING FOR FLEXIBLE ELASTOMERIC THERMAL INSULATION.

SCHEDULES GENERAL NOTES:

TYPICAL FOR ALL SCHEDULE SHEETS:

1. REFER TO ELECTRICAL STANDARD SCHEDULES, ONE LINE DIAGRAM AND PANEL SCHEDULES FOR ADDITIONAL ELECTRICAL INFORMATION
2. PROVIDE THE FOLLOWING FACTORY-WIRED ELECTRICAL OPTIONS/ACCESSORIES WHERE INDICATED IN SCHEDULE:
   A - NON-FUSED DISCONNECT SWITCH
   B - UNIT SHALL BE SINGLE POINT ELECTRICAL CONNECTION WITH FACTORY INSTALLED DISCONNECTING MEANS AND ALL REQUIRED STARTERS AND CONTROLS
   C - SERVICE RECEPTACLE
   D - FUSED DISCONNECT SWITCH
   E - COMBINATION STARTER
   F - UNIT SHALL HAVE (2) SINGLE POINT CONNECTIONS WITH FACTORY INSTALLED DISCONNECTING MEANS AND ALL REQUIRED STARTERS AND CONTROLS. (1) CONNECTION SHALL BE FOR CONDENSING SECTION AND (1) CONNECTION SHALL BE FOR THE REMAINDER OF THE UNIT.
3. FOR MODULATION/CONTROL TYPE COLUMN, "VFC" INDICATES VARIABLE FREQUENCY CONTROLLERS, "AUTO" INDICATES AUTOMATIC OPERATION (CONTROLLED BY TEMPERATURE CONTROLS OR SELF CONTAINED CONTROLS), "MANUAL" INDICATES HAND OPERATION.
4. IF VARIABLE FREQUENCY CONTROLLERS ARE INDICATED TO BE PROVIDED AND ARE NOT INSTALLED INTEGRAL TO THE UNIT, VARIABLE FREQUENCY CONTROLLERS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR (UNLESS OTHERWISE NOTED) AND INSTALLED BY THE ELECTRICAL CONTRACTOR INCLUDING THE LINE SIDE AND LOAD SIDE WIRING TO THE MOTOR AND INCLUDING MISCELLANEOUS STEEL REQUIRED FOR THE SUPPORT AND MOUNTING OF THE VFC. REFER TO FLOOR PLANS FOR LOCATION.
5. WHERE EQUIPMENT IS INDICATED TO HAVE A SINGLE POINT ELECTRICAL CONNECTION, THAT EQUIPMENT SHALL COME COMPLETE WITH FACTORY INSTALLED STARTERS, MOTOR OVERLOAD PROTECTION, CONTACTORS, FUSING AND ALL NECESSARY INTERNAL WIRING AND CONTROLS. PROVIDE A FACTORY MOUNTED UNIT DISCONNECTING MEANS WHERE THE ELECTRICAL CONTRACTOR SHALL MAKE SINGLE POINT CONNECTION. INSTALL PACKAGED EQUIPMENT SUCH THAT THE ELECTRICAL CONNECTION AND CONTROLS ARE ACCESSIBLE AND HAVE CLEARANCES MEETING THE NATIONAL ELECTRICAL CODE.
6. WHERE PACKAGED EQUIPMENT IS PROVIDED, NAMEPLATE MUST INDICATE MAXIMUM OVERCURRENT PROTECTION BY HACR RATED CIRCUIT BREAKERS OR FUSES. IF FUSE PROTECTION ONLY IS INDICATED, PROVIDE A FUSIBLE DISCONNECT AND FUSES WITH THE UNIT.
7. WHERE EQUIPMENT IS DESIGNATED BY MANUFACTURER AND MODEL NUMBER, THIS IS THE BASIS OF DESIGN. IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT BY OTHER SPECIFIED MANUFACTURERS OR PROPOSED ALTERNATE EQUIPMENT BY THE BASIS OF DESIGN MANUFACTURER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS TO ELECTRICAL REQUIREMENTS, STRUCTURAL LOADING, OR ARCHITECTURAL APPURTENANCES AND SHALL INCLUDE THE COST OF SUCH REVISIONS IN HIS BID.
8. WHERE EQUIPMENT IS SCHEDULED TO INCLUDE A SERVICE RECEPTACLE, PROVIDE A FACTORY MOUNTED SERVICE RECEPTACLE WITH APPROPRIATE FUSES AND TRANSFORMERS CONNECTED ON THE LINE SIDE OF THE UNIT DISCONNECT. PROVIDE A NAMEPLATE ON THE DISCONNECT SWITCH INDICATING THE PRESENCE OF LIVE POWER TO THE SERVICE RECEPTACLE WHEN HE UNIT DISCONNECT IS IN THE OFF POSITION.
9. SIZE ALL EQUIPMENT FEEDERS BASED ON THE USTED MOP (MAXIMUM OVERCURRENT PROTECTION). REFER TO THE FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE ON THE ELECTRICAL STANDARD SCHEDULES SHEET.

ABOVEGROUND HVAC PIPING & VALVE APPLICATION SCHEDULE

	MATERIAL						CONNECTION							ISOLATION VALVES			
PIPE SIZE (INCHES)	SOFT COPPER TYPE K	HARD COPPER TYPE L	HARD COPPER TYPE M	CARBON STEEL (SCHED. 40)	CARBON STEEL (SCHED. 80)	CARBON STEEL (STD.)	COPPER TYPE DWV	SOLDERED	BRAZED	WELDED	THREADED	FLANGED	GROOVED	PRESSURE SEAL	MECHANICALLY FORMED TEE	BALL	GENERAL SERVICE BUTTERFLY	HI-PERF BUTTERFLY	GATE	KEYED NOTES
CHILLED WATER SUPPLY & RETURN - MIN. WORKING PRESS. & TEMP.: 125 PSIG AT 200 DEG F																				
UP TO 2				X							X					X				
UP TO 2		X						X	X					X	X	X				
2-1/2 TO 4				X						X		X	X				X			A
2-1/2 TO 4		X						X	X				X	X	X		X			A
6 TO 8				X						X		X	X				X			A

GENERAL NOTES

1. "X" INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A PIPING SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. DISSIMILAR-METAL PIPING JOINTS: CONSTRUCT JOINTS USING DIELECTRIC FITTINGS COMPATIBLE WITH BOTH PIPING MATERIALS. IF A BRONZE VALVE CONNECTS THE DISSIMILAR METALS NO FURTHER DIELECTRIC ISOLATION IS REQUIRED.
   a. NPS 2 AND SMALLER: USE BRASS COUPLING, NIPPLE, OR UNION.
   b. NPS 2-1/2 AND LARGER: USE DIELECTRIC FLANGE KITS.
3. USE UNIONS OR FLANGES AT VALVE AND EQUIPMENT CONNECTIONS.
4. HVAC EQUIPMENT DRAINS, VENTS, SAFETY VALVE PIPING, BLOWDOWN PIPING AND THE LIKE SHALL BE SAME PIPING MATERIAL AS ASSOCIATED PIPING SYSTEM.
5. GROOVED END VALVES MAY BE USED WITH GROOVED PIPING.

KEYED NOTES

A. GROOVED FITTINGS, JOINTS, AND COUPLINGS, IF INDICATED AS AN ACCEPTABLE SELECTION, MAY BE USED IN ACCESSIBLE LOCATIONS FOR THIS PIPING SYSTEM ONLY.
B. BALL VALVE WITH 250 PSIG STEAM TRIM.
C. BALL VALVE WITH 150 PSIG STEAM TRIM.
D. GROOVED FITTINGS, JOINTS AND COUPLINGS MAY BE USED IN MECHANICAL ROOMS ONLY.

ABOVEGROUND HVAC PIPE & ACCESSORY INSULATION APPLICATION SCHEDULE

	INSULATION MATERIAL & THICKNESS (INCHES)								FIELD-APPLIED JACKET MATERIAL						
	FLEXIBLE ELASTOMERIC	FIBERGLASS	MINERAL WOOL	POLYISOCYANURATE	PHENOLIC	CELLULAR GLASS	CALCIUM SILICATE		ALUMINUM	STAINLESS STEEL	PVC	SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)	PVDC (INDOOR)	PVDC (OUTDOOR)	KEYED NOTES
INDOOR PIPE SYSTEM AND SIZE (INCHES)															
CHILLED WATER & BRINE 40 DEG F & BELOW															
6 AND SMALLER		1							X		X				A
8 AND LARGER		2							X		X				A
CHILLED WATER & BRINE ABOVE 40 DEG F	1	1							X		X				A
OUTDOOR (ABOVEGROUND) AND TUNNEL PIPE SYSTEM AND SIZE (INCHES)															
REFRIGERANT SUCTION & HOT GAS (RIGID COPPER)	2	2							X			X			B
REFRIGERANT SUCTION & HOT GAS (SOFT COPPER)	2														B

GENERAL NOTES

1. "X" OR THICKNESS IN INCHES INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. INSULATE PIPING WITHIN AIR HANDLING EQUIPMENT THE SAME AS INDOOR PIPING. PROVIDE ALUMINUM OR STAINLESS STEEL JACKET.

KEYED NOTES

A. PROVIDE FIELD APPLIED JACKET FOR PIPING EXPOSED IN EQUIPMENT ROOMS, STORAGE ROOMS, JANITORS CLOSETS, RECEIVING ROOMS, TEST AREAS, CIRCULATION AREAS AND SUCH AREAS SUBJECT TO DAMAGE WITHIN 10 FEET (3 METERS) OF FINISHED FLOOR.
B. PROVIDE MANUFACTURER'S RECOMMENDED PROTECTIVE COATING FOR FLEXIBLE ELASTOMERIC THERMAL INSULATION.
C. STEAM AND CONDENSATE PIPING JACKET SHALL BE STUCCO EMBOSSED.
D. PIPING WITHIN ENERGY RECOVERY UNITS SHALL BE TYPE 304 STAINLESS STEEL, SMOOTH; 0.010 INCH THICK. SEAMS AND JOINTS CAULKED WITH CHEMICALLY RESISTANT SEALER.

DUCT SYSTEM APPLICATION SCHEDULE

	DUCT MATERIAL																
AIR SYSTEMS	G90 GALV. SHEET METAL	DOUBLE-WALL LINED G90 GALV. SHEET METAL (SOLID INNER WALL)	DOUBLE-WALL LINED G90 GALV. SHEET METAL (PERF. INNER WALL)	G90 GALV. SHEET METAL WITH 1-INCH LINING	GALVANNEALED SHEET METAL	ALUMINUM	TYPE 304 STAINLESS STEEL	TYPE 316 STAINLESS STEEL	PVC COATED GALV. SHEET METAL (4X1)	PVC COATED GALV. SHEET METAL (1X4)	PVC COATED GALV. SHEET METAL (4X4)	16 GA. CARBON STEEL	ZERO-CLEARANCE PREFABRICATED RANGE HOOD EXHAUST DUCT	FABRIC	DESIGN PRESSURE CLASS (INCHES WG)	SEAL CLASS	MAX. ALLOWABLE LEAKAGE RATE (PERCENT)	KEYED NOTES
SUPPLY AIR WITHOUT TERMINAL UNITS	X														+2	A	5	
RETURN AIR WITHOUT TERMINAL UNITS	X														-2	A	5	
EXHAUST AIR WITHOUT TERMINAL UNITS	X														-2	A	5	

GENERAL NOTES

1. "X" INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A DUCT SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. 4 X 1 PVC-COATED GALVANIZED STEEL: FACTORY-APPLIED PVC COATINGS SHALL BE 4 MILS (0.10 MM) THICK ON EXTERIOR SHEET METAL SURFACES OF DUCTS AND FITTINGS EXPOSED TO CORROSIVE CONDITIONS AND MINIMUM 1 MIL (0.025 MM) THICK ON INTERIOR SURFACES.
3. 1 X 4 (4 X 1 REVERSE COATED) PVC-COATED GALVANIZED STEEL: FACTORY-APPLIED PVC COATINGS SHALL BE 4 MILS (0.10 MM) THICK ON INTERIOR SHEET METAL SURFACES OF DUCTS AND FITTINGS EXPOSED TO CORROSIVE CONDITIONS AND MINIMUM 1 MIL (0.025 MM) THICK ON EXTERIOR SURFACES.
4. 4 X 4 PVC-COATED GALVANIZED STEEL: FACTORY-APPLIED PVC COATINGS SHALL BE 4 MILS (0.10 MM) THICK ON SHEET METAL SURFACES OF DUCTS AND FITTINGS EXPOSED TO CORROSIVE CONDITIONS AND 4 MILS (0.10 MM) THICK ON OPPOSITE SURFACES.

KEYED NOTES

A. SCREWS, DAMPERS, OR PROJECTIONS OF ANY TYPE ON INTERIOR OF DUCT SURFACE ARE PROHIBITED.
B. DUCT SHALL BE LINED WITHIN 25 FEET UPSTREAM OF FANS.
C. ALL WELDED CONSTRUCTION.

DUCT SYSTEM INSULATION APPLICATION SCHEDULE

	INSULATION MATERIAL & THICKNESS (INCHES)						FIELD APPLIED JACKET MATERIAL		
	FIBERGLASS BLANKET 0.75 LB/CU FT	FIBERGLASS BLANKET 1.0 LB/CU FT	FIBERGLASS BOARD 2.25 LB/CU FT	FIBERGLASS BOARD 6.0 LB/CU FT	FLEXIBLE ELASTOMERIC	ASTM E2336 2-HOUR FIRE RATED BLANKET	ALUMINUM	SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)	KEYED NOTES
DUCT SYSTEMS LOCATED INDOORS									
SUPPLY AIR, EXCEPT AS NOTED BELOW		1.5							A
RECTANGULAR SUPPLY AIR IN MECHANICAL ROOMS			1.5						

PLENUMS, DUCTS, AND DUCT ACCESSORIES NOT REQUIRING INSULATION:
FIBROUS-GLASS DUCTS
DOUBLE-WALL METAL DUCTS WITH INSULATION OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1 - 2007
METAL DUCTS WITH DUCT LINER OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1 - 2007
EXPOSED SUPPLY DUCT IN CONDITIONED SPACE SERVED BY THAT SYSTEM
FABRIC SUPPLY DUCTS
FACTORY-INSULATED FLEXIBLE DUCTS
FACTORY-INSULATED PLENUMS AND CASINGS
FLEXIBLE CONNECTORS
VIBRATION-CONTROL DEVICES
FACTORY-INSULATED ACCESS PANELS AND DOORS

GENERAL NOTES

1. "X" OR THICKNESS IN INCHES INDICATE ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A DUCT SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. REFER TO METAL DUCT SECTION OF SPECIFICATIONS FOR DUCT LINING AND DOUBLE-WALL INSULATED DUCT.
3. REFER TO HVAC CASINGS SECTION OF SPECIFICATIONS FOR DOUBLE-WALL INSULATED PLENUMS.

KEYED NOTES

A. INCLUDE INSULATION AROUND DUCT MOUNTED COILS AND AIR TERMINAL UNIT COILS.
B. NUMBER OF LAYERS AND TOTAL INSULATION THICKNESS AS RECOMMENDED BY SELECTED MANUFACTURER.
C. DOES NOT APPLY TO PREFABRICATED, ZERO-CLEARANCE GREASE DUCT.
D. PROVIDE MANUFACTURER'S RECOMMENDED PROTECTIVE COATING FOR FLEXIBLE ELASTOMERIC THERMAL DUCT INSULATION.
E. INSULATE DUCTWORK IN CRAWLSPACES, VENTILATED ATTICS, AND PARKING GARAGES HAVING NATURAL OR MECHANICAL VENTILATION THE SAME AS OUTDOOR DUCTWORK.

HOT WATER HEATING COIL SCHEDULE

UNIT IDENTIFICATION	SYSTEM SERVED	MAXIMUM NUMBER ROWS	MAXIMUM FIN DENSITY FINS/INCH	CAPACITY MBH	AIR				MINIMUM FACE AREA SQ. FT.	WATER				CONTROL VALVE W.P.D. FT. HD.	MODEL NUMBER	REMARKS
					AIRFLOW CFM	E.D.B. °F	L.D.B. °F	MAXIMUM A.P.D. IN. W.G.		FLOW GPM	E.W.T. °F	L.W.T. °F	MAXIMUM W.P.D. FT. HEAD			
HC-1	RECEPTION A103	1	10	26.6	780	55.0	86.2	0.22	1.3	1.7	180.0	148.8	1.1	11.55	5BS1001C	
HC-2	OFFICE A102	2	6	7.5	220	55.0	86.1	0.14	0.4	0.5	180.0	148.9	0.2	11.55	5BS0602B	
HC-3	CONFERENCE A104	2	6	6.6	200	55.0	85.1	0.18	0.3	0.5	180.0	153.7	0.2	11.22	5BS0602B	

NOTE:
1. MODEL NUMBERS ARE TRANE UNLESS OTHERWISE NOTED.
2. COIL SELECTION BASED ON .00025 FOULING FACTOR.
3. COIL SELECTIONS SHALL BE BASED ON [25%] [30%] [40%] [ETHYLENE] [PROPYLENE] GLYCOL SOLUTION.

HOT WATER CABINET UNIT HEATER SCHEDULE

UNIT IDENTIFICATION	CAPACITY MBH	AIR			FAN		WATER				CONTROL VALVE W.P.D. FT. HEAD	DIMENSIONS			RECESS DEPTH INCHES	FILTER		MODULATION/ CONTROL TYPE	ELECTRICAL			MODEL NUMBER	REMARKS
		AIRFLOW CFM	E.D.B. °F	L.D.B. °F	HP	RPM	FLOW GPM	E.W.T. °F	L.W.T. °F	MAXIMUM W.P.D. FT. HEAD		LENGTH INCHES	HEIGHT INCHES	DEPTH INCHES		TYPE	AREA SQ. FT.		VOLTS	PHASE	OPTIONS/ ACCESSORIES		
CUH-1	45.5	620	60	127.9	1/4	1120	4.8	200.0	160.0	2.2	11.55	62 3/16	24	10	4	THROW AWAY	3.1	AUTO	115	1	B	RFRC-430-06	

NOTE:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE RITTLING UNLESS OTHERWISE NOTED.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

MECHANICAL SCHEDULES

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016
SHEET NO.:
M7.1WC
JOB NO. 161664A

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GRILLE, REGISTER, AND DIFFUSER SCHEDULE

UNIT IDENTIFICATION	TYPE	FACE SIZE	NECK SIZE	FRAME TYPE	ACCESSORY	CONSTRUCTION	FINISH	MODEL NUMBER	REMARKS
S-1	DIFFUSER	24x24	SEE PLANS	LAY-IN	---	STEEL	WHITE	SPD	
S-2	GRILLE	NECK SIZE +1 3/4	SEE PLANS	SURFACE	---	STEEL	WHITE	520	
R-1	GRILLE	24x24	22x22	LAY-IN	---	STEEL	WHITE	PDDR	
R-2	GRILLE	24x12	22x10	LAY-IN	---	STEEL	WHITE	PDDR	
R-3	GRILLE	SEE DETAIL	SEE PLANS	SURFACE	---	STEEL	WHITE	---	NOTE 4
R-4	GRILLE	NECK SIZE +1 3/4	SEE PLANS	SURFACE	---	STEEL	WHITE	530	
E-1	GRILLE	12x12	6x6	SURFACE	---	STEEL	WHTIE	PDDR	
E-2	GRILLE	12x12	10x10	SURFACE	---	STEEL	WHITE	PDDR	
E-3	GRILLE	24x24	12x12	SURFACE	---	STEEL	WHITE	PDDR	

NOTE:
1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.
2. DIFFUSERS INSTALLED IN BOTH CYP AND LAY-IN CEILINGS. CONTRACTOR TO VERIFY IN FIELD.
3. COLOR SELECTED BY ARCHITECT FROM MANUFACTURER STANDARD COLORS.
4. REFER TO SHEET M6.1 FOR RETURN GRILLE DETAIL.

AIR & DIRT SEPARATOR SCHEDULE

INLET/OUTLET PIPE SIZE (INCHES)	MAX SYSTEM FLOW (GPM)	MAX PRESSURE DROP CLEAN (FT HD)	OPERATING WEIGHT (LBS)	TYPE	MODEL NUMBER
2	35	0.70	66	STANDARD VELOCITY / AIR & DIRT	VDT 200 FA
2 1/2	57	0.75	75	STANDARD VELOCITY / AIR & DIRT	VDT 250 FA
3	100	5.0	178	HIGH VELOCITY / AIR & DIRT	VHT 300 FA
4	220	6.0	186	HIGH VELOCITY / AIR & DIRT	VHT 400 FA
6	650	8.0	336	HIGH VELOCITY / AIR & DIRT	VHT 600 FA
8	1400	9.0	590	HIGH VELOCITY / AIR & DIRT	VHT 800 FA
10	2400	10.0	986	HIGH VELOCITY / AIR & DIRT	VHT 1000 FA
12	3500	12.0	1518	HIGH VELOCITY / AIR & DIRT	VHT 1200 FA

NOTE:
1. MODEL NUMBERS ARE SPIROTHERM UNLESS OTHERWISE NOTED.
2. SEPARATOR FLANGE CONNECTION MUST BE A MINIMUM OF THE PIPE DIAMETER SIZE OF WHICH THE SEPARATOR IS INSTALLED.

PLUMBING CONNECTION SCHEDULE

UNIT IDENTIFICATION	CW INCHES	HW INCHES	SAN INCHES	VENT INCHES	REMARKS
UR-1	3/4	–	2	1 1/2	
WC-1	1 1/2	–	4	2	
LAV-1	1/2	1/2	1 1/2	1 1/2	
WF-1	3/4	3/4	1 1/2	1 1/2	
EWC-1	1/2	–	1 1/2	1 1/2	
FD-1	–	–	3	–	

NOTE: INDIVIDUAL WATER LINE BRANCHES, WASTE LINES, VENTS, AND TRAPS FOR CONNECTION TO INDIVIDUAL FIXTURES, FIXTURE FITTINGS, AND SPECIALTIES SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE OR AS INDICATED ON DRAWINGS, WHICHEVER IS GREATER.

PACKAGED AIR COOLED LIQUID CHILLER SCHEDULE

UNIT NUMBER	CAPACITY TONS	CHILLED WATER						COMPRESSOR MOTOR				EFFICIENCY		CONDENSER		CONDENSER FAN MOTOR		MODULATION/ CONTROL TYPE	ELECTRICAL					MODEL NUMBER	REMARKS
		FLOW GPM	FLUID TYPE	E.W.T. °F	L.W.T. °F	MAXIMUM W.P.D. FT. HEAD	FOULING FACTOR	NUMBER OF COMPRESSOR	KW TOTAL	RLA EACH	LRA EACH	MINIMUM FULL LOAD EER	MINIMUM IPLV (EER)	AMBIENT AIR TEMPERATURE °F	MINIMUM AMBIENT TEMPERATURE °F	QUANTITY	H.P. EACH		VOLTS	PHASE	FLA	MOP	OPTIONS/ ACCESSORIES		
CH-1	80	200	PG30	54	44	10.3	0.0001	4	84.7	72.4	538	10.7	15.8	95.0	35.0	6	2.0	AUTO	208	3	354.6	400	B	AGZ080E	

NOTE:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE DAIKIN UNLESS OTHERWISE NOTED.
3. FLUID TYPE: W = WATER, PGXX = PROPYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL, EGXX = ETHYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL.
4. EFFICIENCY RATINGS SHALL BE IN ACCORDANCE WITH ARI STANDARD 550/590-98 WITH ADDENDA THROUGH JULY 2002.

PUMP SCHEDULE

UNIT IDENTIFICATION	SYSTEM SERVED	LOCATION	TYPE	COUPLING TYPE	WATERFLOW GPM	FLUID TYPE	COLDEST SYSTEM OPERATING TEMP. °F FOR PUMP SELECTION	PUMP HEAD FT.	OVERLOAD GPM	MINIMUM EFFICIENCY %	MOTOR			MODULATION/ CONTROL TYPE	ELECTRICAL			MODEL NUMBER	REMARKS
											BHP	HP	RPM		VOLTS	PHASE	OPTIONS/ ACCESSORIES		
CP-1	CHILLED WATER	MECHANICAL A131	CENTRIFUGAL	CLOSE	200	30 PG	40.0	75	NON-OVERLOADING	74.1	5.23	7.5	1750	AUTO	208	3	B	E-1510 2.5BB	

NOTE:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBER ARE BELL & GOSSETT UNLESS OTHERWISE NOTED.
3. FLUID TYPE: W = WATER, PGXX = PROPYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL, EGXX = ETHYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL.

UNITARY ROOFTOP AIR CONDITIONING UNIT SCHEDULE

UNIT I.D.	AREA SERVED	SUPPLY FAN							EXHAUST FAN		COOLING SECTION – DX										INTEGRAL AIR-COOLED CONDENSING SECTION			FILTER SECTION				ROOF CURB			MAXIMUM UNIT DIMENSIONS			MAXIMUM UNIT OPERATING WEIGHT LBS. (WITH CURB)	ARRANGEMENT SA/RA	TOTAL UNIT ELECTRICAL						MODEL NO.	NOTES
		AIRFLOW CFM	MIN. MIN. OUTSIDE AIR FLOW CFM	E.S.P. IN. W.G.	T.S.P. IN. W.G.	FAN SPEED RPM	BHP	HP	AIRFLOW CFM	E.S.P. IN. W.G.	MIXED AIR		UNIT LEAVING AIR		NET UNIT CAPACITY		NUMBER OF CIRCUITS	REFRIG. TYPE	MAX. FACE VEL. F.P.M.	DESIGN AMBIENT TEMP °F	MIN. AMBIENT TEMP. °F	NO. OF CAPACITY CONTROL STAGES	TYPE	MERV	AIR PRESS. DROP		TYPE		HEIGHT	LENGTH	HEIGHT (WITH CURB)	WIDTH			VOLTS	PHASE	FLA	MCA	MOP	OPTIONS/ ACCESSORIES		
											E.D.B. °F	E.W.B. °F	L.D.B. °F	L.W.B. °F	TOTAL MBH	SENSIBLE MBH									INITIAL IN. W.G.	FINAL IN. W.G.	STANDARD	VIBRATION ISOLATION SPRING CURB NOTE 7														
RTU-1	NEW OFFICE	1200	250	1.0	1.12	1145	0.5	2.0	1200	0.5	82.9	67.9	55.6	54.8	46.8	33.7	1	R-410A	500	95.0	45.0	2	THROW AWAY	8	0.25	0.5	YES	NO	24	85.3	62.9	47.0	1700	BOTTOM/BOTTOM	208	3	31.9	30.0	40.0	B	LCH048S4T	

NOTE:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE LENNOX UNLESS OTHERWISE NOTED
3. DESIGN MINIMUM OUTSIDE AIRFLOW CFM (VENTILATION) LISTED IS BASED ON THE ESTIMATED MAXIMUM OCCUPANT LOAD. REFER TO TEMPERATURE CONTROL DRAWINGS FOR OUTSIDE AIR CONTROL SEQUENCE.
4. MERV DESIGNATES THE "MINIMUM EFFICIENCY REPORTING VALUE" AS EVALUATED UNDER ASHRAE STANDARD 52.2 1999.
5. AIR HANDLING UNIT TOTAL STATIC PRESSURE FOR VARIABLE AIR VOLUME SYSTEMS IS BASED ON THE FILTER DIRTY AIR PRESSURE DROP AND AVERAGE/MIDLIFE FILTER AIR PRESSURE DROP FOR CONSTANT VOLUME SYSTEMS UNLESS NOTED OTHERWISE.
6. SERVICE RECEPTACLE PROVIDED BY UNIT MANUFACTURER, WIRED/INSTALLED BY ELECTRICAL CONTRACTOR.
7. REFER TO VIBRATION ISOLATOR APPLICATION SCHEDULE.
8. PROVIDE HOT GAS REHEAT.

PLUMBING FIXTURE SCHEDULE

UNIT IDENTIFICATION	WATER CLOSET & URINAL						FLUSH VALVE		TOILET SEAT	REMARKS
	FIXTURE MATERIAL	FIXTURE COLOR	MOUNTING STYLE	BOWL TYPE	SUPPLY SPUD LOCATION	MANUFACTURER/ MODEL	CONSUMPTION (GALLONS PER FLUSH)	MANUFACTURER/ MODEL	MANUFACTURER/ MODEL	
WC-1	VITREOUS CHINA	WHITE	FLOOR	ELONGATED	TOP	KOHLER/K-4406	1.6	SLOAN/SOLIS	KOHLER/K-4731-SC	WITH BOTTOM DISCHARGE OUTLET.
WC-2 (A.D.A.)	VITREOUS CHINA	WHITE	FLOOR	ELONGATED	TOP	KOHLER/K-4405	1.6	SLOAN/SOLIS	KOHLER/K-4731-SC	WITH BOTTOM DISCHARGE OUTLET.
UR-1	VITREOUS CHINA	WHITE	WALL	ELONGATED	TOP	KOHLER/K-4904-ET	1.0	SLOAN/SOLIS	---	WITH BACK OUTLET.

APPROVED MANUFACTURERS:
WATER CLOSETS – KOHLER, AMERICAN STANDARD, SLOAN.
TOILET SEATS – KOHLER, AMERICAN STANDARD, BEMIS, CHURCH & OLSONITE.
FLUSHOMETERS – SLOAN

UNIT IDENTIFICATION	LAVATORY/SINKS/WASH FOUNTAINS						FAUCET			REMARKS
	FIXTURE MATERIAL	FIXTURE COLOR	MOUNTING STYLE	BOWL DIMENSIONS L x W x D INCHES	OVERALL DIMENSIONS L x W INCHES	MANUFACTURER/ MODEL	FLOW RATE GALLONS/ MINUTE	DESCRIPTION	MANUFACTURER/ MODEL	
LAV-1	VITREOUS CHINA	WHITE	WALL	15 x 10 x 6 1/2	21 1/4 x 18 1/8	KOHLER/K-2007	MAX. 0.25 GAL/USE	BRASS/CHROM PLATED, SINGLE FAUCET WITH METERED PUSH BUTTON OPERATION W/ VANDAL PROOF AERATOR	CHICAGO FAUCETS / 333-665VPA	NOTE 2, COMPLETE W/THERMOSTATIC MIXING VALVE, GRID DRAIN AND PROTECTIVE SHIELDING PIPE COVERS.
WF-1 (A.D.A)	STAINLESS STEEL	STAINLESS STEEL	FLOOR	---	38 x 32 HEMISPHERICAL	ACORN / 3423-ADA-2-H	0.5 GPM/STATION	3-STATION MANUAL METERED FAUCETS (PUSH BUTTON)	---	FLOOR MOUNTED, BACK OUTLET, 3-STATION, INTEGRAL ASSE 1070 MIXING VALVE, COLUMN BRACED TO BACKSPLASH

UNIT IDENTIFICATION	FLOOR DRAINS & FLOOR SINKS					ACCESSORIES AND FEATURES	MANUFACTURER/MODEL	REMARKS
	PATTERN	TOP SHAPE	OUTLET SIZE INCHES	OUTLET TYPE	COATING			
FD-1	FLOOR DRAIN	ROUND	3	BOTTOM	ENAMEL	SEEPAGE FLANGE, CLAMPING DEVICE	JAY R. SMITH / 2005Y-NB-A	7 INCH DIAMETER NICKEL BRONZE TOP STRAINER, COMPLETE WITH TRAP SEAL PROTECTION DEVICE (SURESEAL), REFER TO SPECIFICATIONS.

NOTE:
1. PROVIDE GRID WASTE OUTLET FOR ALL SINKS.
2. PROVIDE CHROME PLATED, CAST BRASS P-TRAP AND WASTE TO WALL ESCUTCHEON.

APPROVED MANUFACTURERS:
LAVATORIES – KOHLER, AMERICAN STANDARD, SLOAN, & ZURN.
SINKS – ELKAY & JUST.
SERVICE SINKS – KOHLER, AMERICAN STANDARD & ZURN.
WASHFOUNTAINS – ACORN, BRADLEY, INTERSAN, & WILLOUGHBY
FAUCETS – CHICAGO FAUCETS, AMERICAN STANDARD, & SLOAN.
FLOOR DRAINS – JOSAM, MIFAB, SIOUX CHIEF, JAY R. SMITH, TYLER PIPE, WATTS & ZURN.

UNIT IDENTIFICATION	ELECTRIC WATER COOLER & DRINKING FOUNTAIN						BUBBLER			REMARKS
	FIXTURE MATERIAL	FIXTURE COLOR	MOUNTING STYLE	NUMBER OF BOWLS	OVERALL DIMENSIONS L x W x D INCHES	MANUFACTURER/ MODEL	STYLE	FLOW RATE	ELECTRICAL	
EWC-1	STAINLESS STEEL	SATIN FINISH	WALL MOUNTED	2 (BI-LEVEL)	36-1/2 x 18-9/16 x 39	ACORN A172408F-UBL-BF2S-BCD	VANDAL-RESISTANT	8 GPH	115V/1PH	NON-FILTERED, COMPLETE WITH MOUNTING FRAME, BOTTLE FILLER, ADA ACCESSORIES
DF-1	STAINLESS STEEL	SATIN FINISH	WALL MOUNTED	1	29-1/2 x 19 x 11	ELKAY EDFB12C	FLEXI-GUARD SAFETY BUBBLER	0.5 GPM	---	FULLY RECESSED FOUNTAIN

APPROVED MANUFACTURERS:
WATER COOLERS – ELKAY, ACORN, OASIS, HALSEY-TAYLOR, & HAWS.

POWER VENTILATOR SCHEDULE

UNIT IDENTIFICATION	SYSTEM SERVED	TYPE	AIRFLOW CFM	T.S.P. IN. W.G.	TIP SPEED FPM	FAN RPM	MOTOR				CURB HEIGHT INCHES	MODULATION/ CONTROL TYPE	ELECTRICAL			UNIT INLET Lw BY OCTAVE BAND								MODEL NUMBER	REMARKS
							BHP	HP	RPM	DRIVE TYPE			VOLTS	PHASE	OPTIONS/ ACCESSORIES	63 HZ (DB)	125 HZ (DB)	250 HZ (DB)	500 HZ (DB)	1000 HZ (DB)	2000 HZ (DB)	4000 HZ (DB)	8000 HZ (DB)		
EF-1	TOILET A101	CENTRIFUGAL	70	0.3	3,167	1489	0.01	1/10	1725	DIRECT	14	AUTO	115	1	B	57	60	58	48	46	47	39	32	G-060-VG	

NOTE:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE GREENHECK UNLESS OTHERWISE NOTED.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

MECHANICAL SCHEDULES

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016
SHEET NO.:
M7.2WC
JOB NO. 161664A

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TEMPERATURE CONTROL - SYMBOLS LIST

SCHEMATIC SYMBOLS

SYMBOL	DESCRIPTION
AFC	AIR FLOW CONTROLLER
AQ	AQUASTAT, STRAP ON BULB
CO2	CARBON DIOXIDE SENSOR – WALL MOUNTED
CO2	CARBON DIOXIDE SENSOR – DUCT MOUNTED
CO	CARBON MONOXIDE SENSOR – WALL MOUNTED
CO	CARBON MONOXIDE SENSOR – DUCT MOUNTED
CS	CURRENT SWITCH
CT	CURRENT TRANSMITTER
	DAMPER – INLET VANES
	DAMPER – OPPOSED BLADE
	DAMPER – PARALLEL BLADE
M	DAMPER MOTOR
M	DAMPER MOTOR W/ POSITIVE POSITIONER
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DPS	DIFFERENTIAL PRESSURE SWITCH
CM	FIRE ALARM SYSTEM, ADDRESSABLE CONTROL MODULE
IM	FIRE ALARM SYSTEM, ADDRESSABLE INTERFACE MODULE
FMS	FLOW MEASURING STATION
FM	FLOW METER
FS	FLOW SWITCH
FZ	FREEZESTAT
F/	GAUGE – FLOW
P/	GAUGE – PRESSURE
T/	GAUGE – TEMPERATURE
	GUARD FOR STAT OR SENSOR
	HUMIDIFIER
H	HUMIDISTAT OR HUMIDITY SENSOR (AS DEFINED ON TC DRAWINGS)
H	HUMIDITY SENSOR, DUCT MOUNTED
LVL	LEVEL SWITCH OR TRANSMITTER
LS	LIMIT SWITCH
	LINE – ELECTRIC
	LINE – PNEUMATIC
M	MAIN CONTROL AIR SUPPLY
M/S	MOTOR STARTER
OS	OCCUPANCY SENSOR
R	PILOT LIGHT OR BEACON R – RED LENS A – AMBER LENS B – BLUE LENS G – GREEN LENS
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER
R	RELAY, ELECTRIC
N	SELECTOR SWITCH, (N=NUMBER OF POSITIONS)
AI	SIGNAL – DDC/BAS, ANALOG INPUT
AO	SIGNAL – DDC/BAS, ANALOG OUTPUT
DI	SIGNAL – DDC/BAS, DIGITAL INPUT
DO	SIGNAL – DDC/BAS, DIGITAL OUTPUT
AI	SIGNAL – PACKAGED EQUIPMENT, ANALOG INPUT
AO	SIGNAL – PACKAGED EQUIPMENT, ANALOG OUTPUT
DI	SIGNAL – PACKAGED EQUIPMENT, DIGITAL INPUT
DO	SIGNAL – PACKAGED EQUIPMENT, DIGITAL OUTPUT

NOTE: REFER TO MECHANICAL STANDARDS ON DRAWING M0.1 FOR ADDITIONAL SYMBOLS & ABBREVIATIONS THAT MAY BE USED ON TEMPERATURE CONTROL DRAWINGS.

SCHEMATIC SYMBOLS (CONT.)

SYMBOL	DESCRIPTION
DD	SMOKE DETECTOR – DUCT MOUNTED
SD	SMOKE DETECTOR – SPACE MOUNTED
S/S	START/STOP RELAY
SPT	STATIC PRESSURE TRANSMITTER
SP	STATIC PRESSURE SENSOR OR PROBE
SW	SWITCH
T	TEMPERATURE SENSOR – RIGID ELEMENT IN WELL
T	TEMPERATURE SENSOR – STRAP ON BULB
T	TEMPERATURE SENSOR – DUCT MOUNTED AVG ELEMENT
T	TEMPERATURE SENSOR – DUCT MOUNTED RIGID ELEMENT
T	THERMOSTAT OR TEMPERATURE SENSOR (AS DEFINED ON TC DRAWINGS)
T N	THERMOSTAT FOR NIGHT SETBACK
XF	TRANSFORMER
	VALVE – 2 WAY CONTROL VALVE
	VALVE – 3 WAY CONTROL VALVE
M	VALVE – 2 WAY CONTROL W/ POSITIONER
M	VALVE – 3 WAY CONTROL W/ POSITIONER
VFC	VARIABLE FREQUENCY CONTROLLER
VS	VELOCITY SENSOR
VIB	VIBRATION SWITCH
V	VOLTAGE SENSOR

WIRING SYMBOLS

SYMBOL	DESCRIPTION
	AUDIBLE DEVICE (AS DEFINED ON TC DRAWINGS)
M/S	COIL – MOTOR STARTER CONTACTOR
R	COIL – RELAY
TDR	COIL – TIME DELAY RELAY
VFC	COIL – VARIABLE FREQUENCY CONTROLLER CONTACTOR
	COIL – EP OR SOLENOID VALVE
	CONTACT – INSTANT OPERATING, NO
	CONTACT – INSTANT OPERATING, NC
	CONTACT – TIMED AFTER COIL IS ENERGIZED, NOTC
	CONTACT – TIMED AFTER COIL IS ENERGIZED, NCTO
	CONTACT – TIMED AFTER COIL IS DE-ENERGIZED, NOTO
	CONTACT – TIMED AFTER COIL IS DE-ENERGIZED, NCTC
	GROUND
	MOTOR, SINGLE PHASE
R	PILOT LIGHT OR BEACON R – RED LENS A – AMBER LENS B – BLUE LENS G – GREEN LENS
R	PILOT LIGHT, WITH PUSH-TO-TEST
	PUSH BUTTON – MOMENTARY CONTACT, NO
	PUSH BUTTON – MOMENTARY CONTACT, NC
	PUSH BUTTON – MOMENTARY CONTACT, NO & NC
	PUSH BUTTON – MOMENTARY, NO (MUSHROOM HEAD)
	PUSH BUTTON – MOMENTARY, NC (MUSHROOM HEAD)

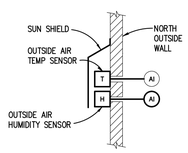
WIRING SYMBOLS (CONT.)

SYMBOL	DESCRIPTION
1 2	SWITCH – 2 POSITION SELECTOR
H O A	SWITCH – 3 POSITION SELECTOR HAND/OFF/AUTO
	SWITCH – FLOW (AIR, WATER, ETC.), NO
	SWITCH – FLOW (AIR, WATER, ETC.), NC
	SWITCH – LIMIT, NO
	SWITCH – LIMIT, NO, HELD CLOSED
	SWITCH – LIMIT, NC
	SWITCH – LIMIT, NC, HELD OPEN
	SWITCH – LIQUID LEVEL, NO
	SWITCH – LIQUID LEVEL, NC
	SWITCH – MANUAL SPST, NO
	SWITCH – MANUAL DPDT, NO
	SWITCH – MANUAL SPST, NC
	SWITCH – MANUAL DPDT, NC
	SWITCH – MANUAL SPDT
	SWITCH – MANUAL DPDT
	SWITCH – PRESSURE & VACUUM, NO
	SWITCH – PRESSURE & VACUUM, NC
	SWITCH – TEMPERATURE ACTUATED, NO
	SWITCH – TEMPERATURE ACTUATED, NC
	THERMAL OVERLOAD, SINGLE PHASE
OL'S	THERMAL OVERLOAD CONTACTS – 3 PHASE
	TRANSFORMER
	WIRE TERMINATION AT DEVICE
	WIRE TO WIRE TERMINATION
	WIRING NOT CONNECTED

WIRING TERMS

ABBREVIATION	DESCRIPTION
SPST	SINGLE POLE SINGLE THROW
SPDT	SINGLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DPDT	DOUBLE POLE DOUBLE THROW
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NOTO	NORMALLY OPEN TIMED OPEN
NOTC	NORMALLY OPEN TIMED CLOSED
NCTO	NORMALLY CLOSED TIMED OPEN
NCTC	NORMALLY CLOSED TIMED CLOSED

NOTE: SOME SYMBOLS & ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.



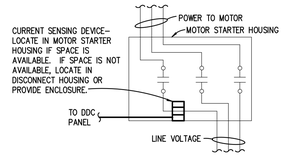
OA SENSOR INSTALLATION DETAIL

NO SCALE

SEQUENCE OF OPERATION

OUTSIDE AIR SENSORS DETAIL:

1. REPLACE EXISTING OA TEMPERATURE SENSOR WITH A NEW OA TEMPERATURE AND RELATIVE HUMIDITY SENSOR IN THE SAME LOCATION.
2. PROVIDE OA TEMPERATURE, HUMIDITY, AND ENTHALPY CALCULATION ON BACNET FOR CONTROL DECISIONS AND DISPLAY AT THE BAS.



CURRENT SWITCH INSTALLATION DETAIL

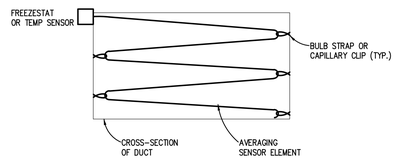
TYPICAL FOR ALL CURRENT SWITCHES USED ON FAN AND PUMP MOTORS.
NOTES:

1. ALL MOTOR LOADS SHOWN ON DRAWINGS SHALL HAVE CURRENT SWITCHES FOR STATUS INDICATION AND RUN HOURS TOTALIZATION BY DDC TO THE BAS.
2. INSTALL CURRENT SWITCH ON MOTOR LEADS. CURRENT SWITCH SHALL BE ADJUSTED TO MEET THE CURRENT DRAW REQUIRED TO DETECT FAN BELT LOSS, PUMP COUPLING DETACHMENT, OR VFC LOSS.

SEQUENCE OF OPERATION

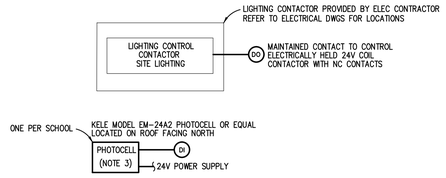
CURRENT SWITCH INSTALLATION:

1. ALL DELAY TIMERS DESCRIBED IN THE SEQUENCE SHALL BE ADJUSTABLE BY SYSTEM OPERATORS (CREATE REQUIRED VIRTUAL POINTS).
2. UPON FAN OR PUMP MOTOR START OR STOP, AND AFTER 120 SECONDS (ADJUSTABLE) DELAY BY DDC, IF THE CURRENT DRAW IS NOT APPROPRIATE, DDC SHALL ALARM THE MOTOR STATUS POINT.
3. WHEN FAN OR PUMP IS ON AND NOT IN ALARM, DDC SHALL TOTALIZE RUN TIME HOURS FOR BAS USE.



AVERAGING ELEMENT INSTALLATION DETAIL

NO SCALE



BUILDING LIGHTING CONTROL (PART OF ADD ALTERNATE E1W)

NOTES:

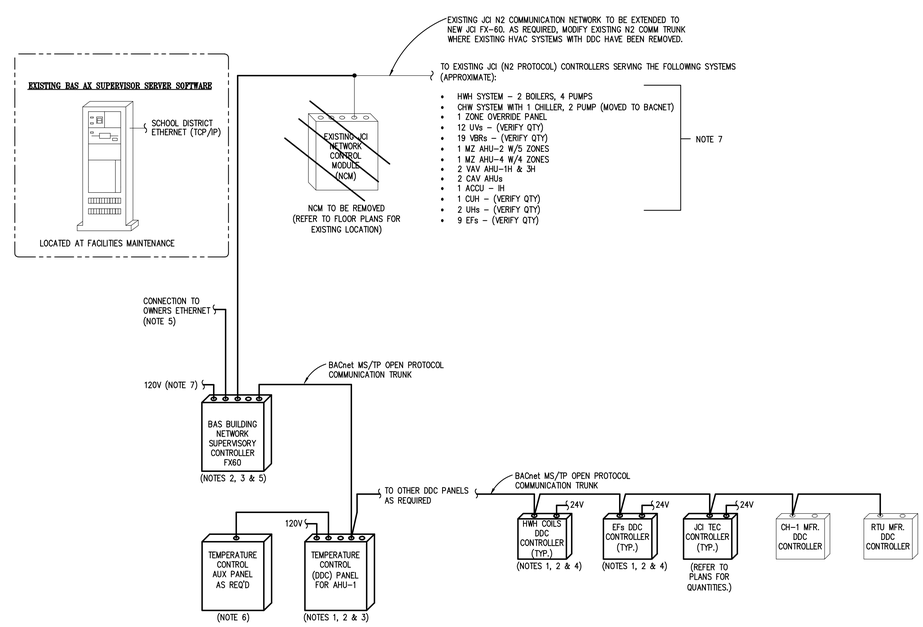
1. REFER TO LIGHTING SYSTEM AND CONTROLLER DETAILS ON ELECTRICAL DRAWINGS.
2. COORDINATE WIRING REQUIREMENTS AND TERMINATIONS WITH ELECTRICAL CONTRACTOR.
3. TC CONTRACTOR SHALL PROVIDE PHOTOCELL, 24V POWER SUPPLY AND ASSOCIATED WIRING FOR BAS FOR MONITORING AND OVERRIDE OFF CONTROL OF EXTERIOR LIGHTING SCHEDULES.

SEQUENCE OF OPERATION:

1. DDC SHALL CONTROL LIGHTING ZONE BASED ON TIME SCHEDULE.
2. FOR EXTERIOR LIGHTING CONTROLLERS: DDC MONITORED PHOTOCELL SHALL BE USED FOR "ON" CONTROL BASED ON SCHEDULED OPERATION AND BAS CONTROL "OFF" AS DIRECTED BY OWNER.

GENERAL NOTES:

1. THESE GENERAL NOTES SHALL BE APPLICABLE FOR ALL TC DRAWINGS.
2. "PROVIDE" IS DEFINED AS "FURNISH AND INSTALL".
3. TC CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.
4. FOR TEMPERATURE CONTROL DRAWINGS ONLY: ALL DETAILED INFORMATION IDENTIFIED WITH HEAVY LINE WEIGHT SHALL BE PROVIDED BY TC CONTRACTOR. ALL OTHER INFORMATION IDENTIFIED WITH LIGHT LINE WEIGHT SHALL BE PROVIDED BY OTHER TRADES.
5. ALL CONTROL SCHEMATICS AND WIRING DIAGRAMS ARE FOR THE CLARIFICATION OF EQUIPMENT INTERLOCKING FUNCTIONS AND THE INTERFACE OF VARIOUS CONTRACTORS'S WORK AND SHALL NOT BE MISTAKEN AS SHOP DRAWINGS FOR ACTUAL INSTALLATION.
6. TC CONTRACTOR SHALL PROVIDE DDC CONTROLLERS AS REQUIRED TO MEET INTENT OF DESIGN DOCUMENTS. REFER TO THE PLANS FOR THE DDC FUNCTIONS THAT APPLY TO EACH MECHANICAL SYSTEM.
7. ALL TC PROVIDED COMPONENTS AND ALL TC CONTRACTOR INSTALLED WIRING SHALL BE LABELED PER SPECIFICATIONS.
8. ALL WIRING AND SYSTEM CONTROL VOLTAGES SHALL BE IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATION AND THE ELECTRICAL SPECIFICATIONS.
9. VARIABLE FREQUENCY CONTROLLERS, FAN AND PUMP MOTOR STARTERS, STARTER WIRING, CONTROL VOLTAGE TRANSFORMERS AND ASSOCIATED POWER WIRING SHALL BE PROVIDED BY OTHER TRADES.
10. DUCT SMOKE DETECTORS SHALL BE FURNISHED, INSTALLED AND WIRED TO THE FIRE ALARM SYSTEM BY THE ELECTRICAL CONTRACTOR. ELECTRICAL SHALL PROVIDE FIRE ALARM SYSTEM CONTROL MODULES FOR REQUIRED SAFETIES TO MOTOR STARTERS OR VFCs AS INDICATED. CONTROL MODULES SHALL BE LOCATED NEAR RESPECTIVE MOTOR STARTERS OR VFCs. TC CONTRACTOR SHALL PROVIDE INTERLOCK WIRING FROM CONTROL MODULES TO MOTOR STARTERS OR VFCs.
11. ALL DDC AND CONTROL INTERLOCK WIRING SHALL BE BY TC CONTRACTOR UNLESS OTHERWISE NOTED. TC CONTRACTOR SHALL COORDINATE WITH VFC AND MOTOR STARTER SUPPLIERS TO DETERMINE EXACT WIRING REQUIREMENTS AND TERMINATION POINTS.
12. ALL DDC AND CONTROL INTERLOCK WIRING BETWEEN COMPONENTS SHALL BE INSTALLED WITHOUT INTERMEDIATE STOPS. WIRE SPLICING AT INTERMEDIATE TERMINAL STRIPS IS NOT ACCEPTABLE.
13. ALL ELECTRICAL WIRING AND RACEWAY SYSTEMS SHALL COMPLY WITH ELECTRICAL SPECIFICATION REQUIREMENTS. WHERE RACEWAY IS REQUIRED, TWO SEPARATE ELECTRICAL RACEWAY SYSTEMS SHALL BE PROVIDED: ONE FOR 120V WIRING AND THE OTHER FOR 24V WIRING.
14. TC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER SUPPLIES REQUIRED FOR TC SYSTEM UNLESS OTHERWISE NOTED. REFER TO ELECTRICAL PANEL SCHEDULES FOR SPARE CIRCUITS OR CIRCUITS DEDICATED TO TEMPERATURE CONTROLS. COORDINATE CIRCUIT USE WITH ELECTRICAL CONTRACTOR.
15. TC CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL FIELD MOUNTED COMPONENTS.
16. THERMOSTATS AND SPACE TEMPERATURE SENSORS SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. PROVIDE GUARDS FOR SPACE TEMP SENSORS LOCATED IN PUBLIC AREAS.
17. TC CONTRACTOR SHALL PROVIDE AUXILIARY PANELS FOR REQUIRED PANEL MOUNTED EQUIPMENT SUCH AS RELAYS, TRANSDUCERS, CONTROL TRANSFORMERS, ETC. AUXILIARY PANELS SHALL BE LOCATED NEXT TO ASSOCIATED DDC PANEL.
18. REMOTELY MOUNTED FIELD DEVICES SUCH AS RELAYS, CONTROL TRANSFORMERS, ETC., SHALL BE HOUSED IN AN ENCLOSURE PROVIDED BY THE TC CONTRACTOR.
19. CONTROL TRANSFORMERS WHEN REQUIRED SHALL BE SIZED FOR 150% OF ACTUAL LOAD.
20. FREEZESTATS SHALL BE MOUNTED ON UPSTREAM FACE OF COOLING COILS. FREEZESTAT QUANTITY SHALL BE ONE PER 20 SQ. FT OF CROSS SECTIONAL AREA.
21. CURRENT SWITCHES USED FOR OPERATIONAL STATUS SHALL HAVE CURRENT THRESHOLD SETPOINT ADJUSTED TO INDICATE BELT OR DRIVE FAILURE.
22. ALL CONTROL VALVES, CONTROL DAMPERS AND ASSOCIATED CONTROL ACTUATORS IDENTIFIED ON TC DRAWINGS SHALL BE FURNISHED BY TC CONTRACTOR UNLESS OTHERWISE NOTED. DAMPER SIZE AND LOCATIONS ARE INDICATED ON MECHANICAL FLOOR PLAN DRAWINGS.
23. ALL CONTROL VALVES AND DAMPERS FURNISHED BY THE TC CONTRACTOR SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR. ALL PIPE PENETRATIONS AND BASIC FITTINGS REQUIRED FOR SENSOR INSTALLATIONS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR.
24. DAMPER ACTUATORS SHALL BE INSTALLED BY TC CONTRACTOR.
25. ALL INSTRUMENTATION TUBING REQUIRED FOR DPS AND DPT COMPONENT INSTALLATIONS SHALL BE PROVIDED BY TC CONTRACTOR.
26. TC CONTRACTOR SHALL FIELD MOUNT ALL REQUIRED PACKAGED CONTROL COMPONENTS FURNISHED BY EQUIPMENT SUPPLIERS WHERE INDICATED. ALL REQUIRED 24V AND 120V FIELD WIRING SHALL BE PROVIDED BY TC CONTRACTOR UNLESS NOTED OTHERWISE. TC CONTRACTOR SHALL COORDINATE SPECIFIC SYSTEM WIRING REQUIREMENTS WITH PACKAGED EQUIPMENT SUPPLIERS.



DDC SYSTEM ARCHITECTURE

NO SCALE

NOTES:

1. REFER TO TEMPERATURE CONTROL SCHEMATICS FOR THE REQUIRED POINTS ASSOCIATED FOR EACH SYSTEM.
2. TC CONTRACTOR SHALL DETERMINE DDC PANEL QUANTITY BASED ON POINT DENSITIES AND AVAILABLE MOUNTING SPACE. UNLESS SPECIFICALLY NOTED IN DESIGN DRAWINGS, TC CONTRACTOR SHALL LOCATE DDC PANELS AND COORDINATE WITH OTHER TRADES.
3. TC CONTRACTOR SHALL PROVIDE REQUIRED POWER SUPPLIES FROM SPARE CIRCUITS WHERE IDENTIFIED ON NEW ELECTRICAL PANEL SCHEDULES, FROM EXISTING TEMPERATURE CONTROL POWER CIRCUITS OR FROM EXISTING ELECTRICAL PANELBOARDS WHERE AVAILABLE AS FIELD DETERMINED. COORDINATE WITH ELEC CONTRACTOR. REFER TO ELECTRICAL DWGS FOR PANEL LOCATIONS.
4. TC CONTRACTOR SHALL PROVIDE 24V TRANSFORMERS REQUIRED FOR DDC CONTROLLERS AND OTHER CONTROLLERS AS REQUIRED. TRANSFORMERS SHALL BE LOCATED WITHIN EQUIPMENT ENCLOSURES OR OTHER TC PROVIDED ENCLOSURES TO BE LOCATED IN MECHANICAL OR ELECTRICAL ROOMS – COORDINATE LOCATIONS. MAXIMUM TRANSFORMER SIZE SHALL BE 100V.
5. NEW JCI FX60 (MINIMUM) BUILDING BAS NETWORK SUPERVISORY CONTROLLER SHALL BE CONNECTED TO THE SCHOOL DISTRICT ETHERNET. TC CONTRACTOR SHALL FURNISH AND INSTALL WIRING FOR DATA OUTLET FROM A BUILDING IT NETWORK RACK LOCATION. COORDINATE DATA OUTLET LOCATION, WIRING REQUIREMENTS, CONNECTION AND I/P ADDRESS WITH OWNER'S INFORMATION TECHNOLOGY PERSONNEL.
6. AUXILIARY PANEL FOR GAUGES, TRANSMITTERS, RELAYS, POWER TRANSFORMERS, ETC.
7. SCOPE OF WORK SHALL INCLUDE:
   - 7.1. INTEGRATION (DATABASE MIGRATION AND GRAPHICS DEVELOPMENT) FOR THE EXISTING DDC CONTROLLED HVAC SYSTEMS ("THAT REMAIN) TO THE JCI FX-60 AND EXISTING REMOTE BUILDING AUTOMATION SYSTEM AX SUPERVISOR SERVER.
   - 7.2. INTEGRATION (DATABASE MIGRATION AND GRAPHICS DEVELOPMENT) FOR THE NEW WORK PROVIDED UNDER THIS PROJECT'S DDC CONTROLLED HVAC SYSTEMS TO THE JCI FX-60 AND EXISTING REMOTE BUILDING AUTOMATION SYSTEM AX SUPERVISOR SERVER.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

TEMPERATURE CONTROLS STANDARDS AND GENERAL NOTES

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: JRM
CHECKED BY: RNR

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016
SHEET NO.:
M8.1WC
JOB NO. 161664A

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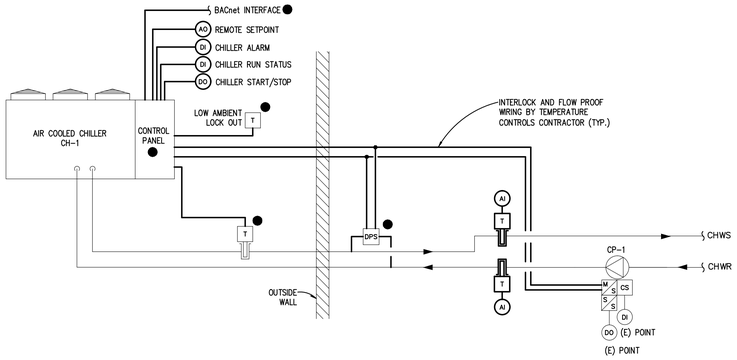
TC GENERAL NOTES

TC GENERAL NOTES ON DRAWING M8.1WC APPLY TO THIS DRAWING.

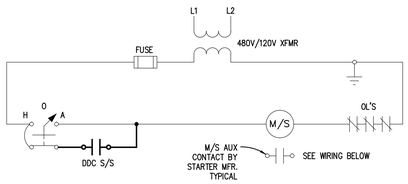


CHILLED WATER SYSTEM CONTROL

SEQUENCE OF OPERATION

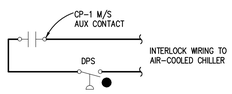
CHILLED WATER SYSTEM:

1. ALL SETPOINTS, RESET SETPOINTS, DELAYS, TIME INTERVALS, AND DEADBANDS DESCRIBED IN SEQUENCE SHALL BE ADJUSTABLE BY SYSTEM OPERATORS. APPROPRIATE DEADBANDS SHALL BE USED TO PREVENT SHORT CYCLING SITUATIONS. ALL FAN AND PUMP MOTOR CONTROL SWITCHES SHALL BE IN "AUTO" POSITION.
2. CHILLER PACKAGED CONTROLS SHALL BE SET FOR REMOTE ENABLE FUNCTION BY OPERATORS.
3. CHILLED WATER SYSTEM OPERATION SHALL BE ENABLED BY DDC SYSTEM AUTOMATICALLY WHEN OA ENTHALPY IS GREATER THAN 23 BTU/LB AND THERE IS A DEMAND FOR CHW PRODUCTION. DDC SHALL DISABLE CH-1 WHEN OA ENTHALPY IS LESS THAN 21 BTU/LB.
4. THE CHW CIRCULATING PUMPS CP-1 SHALL HAVE START/STOP CAPABILITY FROM THE DDC SYSTEM. WHEN SYSTEM IS ACTIVATED BY DDC, DDC SHALL START PUMP CP-1.
5. DDC SHALL MONITOR OPERATING STATUS OF PUMP CP-1 VIA CURRENT SWITCH. UPON PUMP FAILURE, DDC SHALL ACTIVATE FAILURE ALARM AND AUTOMATICALLY START THE STANDBY PUMP. DDC SHALL TOTALIZE CP-1 RUN TIME HOURS OF OPERATION.
6. WHEN CHW FLOW IS PROVEN BY DIFFERENTIAL PRESSURE SWITCH WIRED IN SERIES WITH PUMP AUXILIARY CONTACT, CHILLER INTERLOCK IS COMPLETE AND THE CHILLER PACKAGED CONTROL PANEL WITH INTEGRAL TEMPERATURE SENSOR SHALL SEQUENCE CHILLER OPERATION TO MAINTAIN THE CHILLER'S CHW SUPPLY SETPOINT OF 42°F (ADJUSTABLE AT CHILLER PANEL OR FROM REMOTE SETPOINT ADJUSTMENT THRU DDC).
7. DDC SHALL MONITOR OPERATING STATUS OF CHILLER. UPON CHILLER FAILURE, DDC SHALL ACTIVATE FAILURE ALARM. DDC SHALL TOTALIZE CHILLER RUN TIME HOURS OF OPERATION FROM STATUS POINTS.
8. DDC SHALL MONITOR OTHER CHILLER POINTS VIA BACNET INTERFACE. ALLOW FOR TEN ADDITIONAL POINTS OF INFORMATION AT THE BAS GRAPHIC.
9. DDC SHALL KEEP PUMP CP-1 ACTIVATED FOR 5 MINUTES AFTER CHILLER SHUTDOWN CYCLE IS ACTIVATED.
10. DDC SHALL PREVENT SHORT CYCLING OF CHILLER WITH A 20 MINUTE INTERVAL BETWEEN CHILLER SHUTDOWN AND CHILLER RESTART.

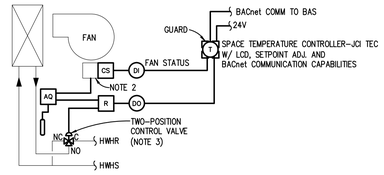


CHW PUMPS CP-1 M/S WIRING

TYPICAL



CH-1 INTERLOCK WIRING



HWH CUH CONTROL

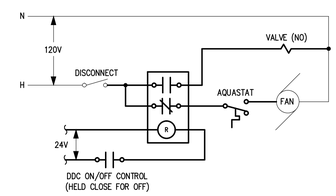
TYPICAL

NOTES:

1. REFER TO FLOOR PLANS FOR QUANTITY AND LOCATION OF UNITS.
2. AQUASTAT SHALL BE WIRED IN SERIES WITH FAN CONTROL WIRING CIRCUIT.
3. CONTROL VALVE MANUFACTURER/MODEL SHALL BE SCHNEIDER ELECTRIC (FORMERLY ERIE) / VM SERIES POPTOP ZONE VALVES WITH AP23A000 MODEL ACTUATOR WITH APPROPRIATE CONTROL SIGNAL TO INTERFACE WITH NEW CONTROLLER.

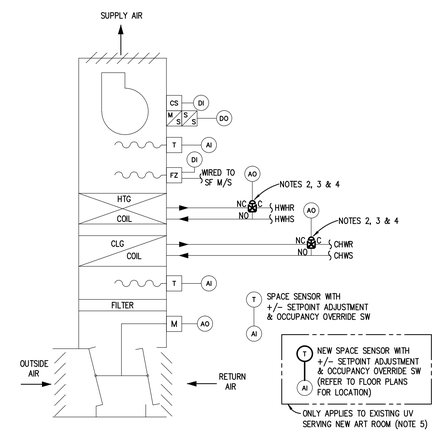
SEQUENCE OF OPERATION:

1. JCI TEC CONTROLLER SHALL ENABLE/DISABLE FAN CIRCUIT AND OPEN/CLOSE HEATING VALVE AS REQUIRED TO MAINTAIN SPACE TEMP SETPOINT OF 68°F DURING BLDG OCCUPANCY AND 55°F DURING BLDG UNOCCUPANCY. FAN SHALL ACTIVATE UPON PROOF OF HWHR FLOW BY AQUASTAT. AQUASTAT SHALL PROVIDE 4°F DEADBAND MINIMUM.
2. TEC SHALL PROVIDE 2°F DEADBAND AT SETPOINTS.
3. TEC SHALL MONITOR FAN OPERATION. ABNORMAL OPERATING STATUS SHALL ACTIVATE AN ALARM.



HWH CUH WIRING

TYPICAL



EXISTING CONSOLE UNIT VENTILATOR CONTROL CONTROL VALVE REPLACEMENTS & MISC

TYPICAL

NOTE:

1. REFER TO FLOOR PLANS FOR QUANTITY OF EXISTING UNITS AND LOCATIONS.
2. TEMPERATURE CONTROLS WORK SCOPE AT EXISTING UNIT VENTILATORS IS TO REPLACE THE EXISTING 3-WAY HOT WATER HEATING AND 3-WAY CHILLED WATER CONTROL VALVES AND ACTUATORS. EXISTING UNIT VENTILATOR CONTROLLER AND PROGRAMMING SEQUENCE TO REMAIN (COMPONENTS/POINTS INDICATED IN DETAIL MAY NOT REPRESENT ACTUAL EXISTING CONTROL).
3. TC CONTRACTOR SHALL FIELD VERIFY EXISTING CONTROL VALVE PIPING CONFIGURATION AND SELECT CONTROL VALVES BASED ON EXISTING Cv VALUES OR BASED ON FLOW READINGS TAKEN BY TAB CONTRACTOR PRIOR TO PROJECT DEMOLITION REQUIREMENTS.
4. CONTROL VALVE MANUFACTURER/MODEL SHALL BE SCHNEIDER ELECTRIC (FORMERLY ERIE) / VM SERIES POPTOP ZONE VALVES WITH AP23A000 MODEL ACTUATOR WITH APPROPRIATE CONTROL SIGNAL TO INTERFACE WITH EXISTING DDC CONTROLLER.
5. FOR EXISTING UV SERVING ART RM: PROVIDE NEW SPACE TEMP SENSOR TO CONTROL EXISTING UNIT VENTILATOR. CURRENTLY SPACE IS SERVED BY TWO UNIT VENTILATORS WITH A SINGLE SPACE SENSOR. THE PROJECT IS SPLITTING THE EXISTING ROOM INTO TWO SEPARATE ROOMS.

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TEMPERATURE CONTROLS

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DRAWN BY: JRM
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REVISIONS:
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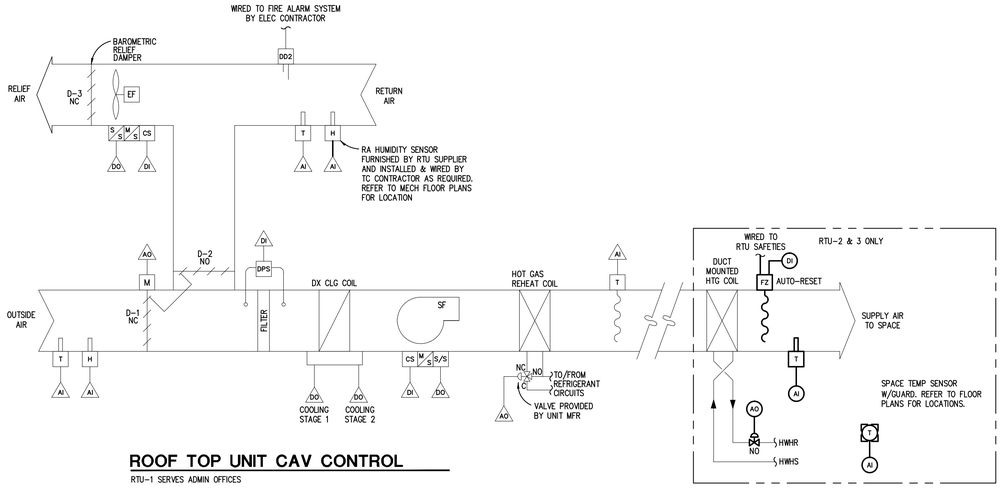


ROOF TOP UNIT CAV CONTROL

RTU-1 SERVES ADMIN OFFICES

NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE ALARM SYSTEM COMPONENTS AND WIRING FROM FIRE ALARM PANEL TO CONTROL MODULE. TC CONTRACTOR SHALL PROVIDE WIRING FROM CONTROL MODULE TO MOTOR STARTER CONTROL CIRCUIT.
2. RTU TO BE PROVIDED WITH PACKAGED CONTROLS AND BACNET COMPATIBLE CARD.

RTU-1 SEQUENCE OF OPERATION

ROOFTOP UNIT RTU-1 CONTROL:

1. MANUFACTURER'S RTU DDC CONTROLLER AND CONTROL SEQUENCE OF OPERATION (HEREIN CALLED RTU) MAY VARY SLIGHTLY FROM THE RECOMMENDED SEQUENCE SHOWN BELOW. MANUFACTURER'S REPRESENTATIVE SHALL DOCUMENT THESE VARIATIONS IN THE SUBMITTAL PACKAGE.

SEQUENCE OF OPERATION:

1. ALL SETPOINTS, RESET SETPOINTS, DELAYS, TIME INTERVALS, AND DEADBANDS DESCRIBED IN SEQUENCE SHALL BE ADJUSTABLE BY SYSTEM OPERATORS. APPROPRIATE DEADBANDS SHALL BE USED TO PREVENT SHORT CYCLING SITUATIONS. ALL FAN AND PUMP MOTOR CONTROL SWITCHES SHALL BE IN "AUTO" POSITION.
2. SUPPLY FAN AND EXHAUST FAN SHALL HAVE START/STOP CAPABILITY FROM THE BAS THRU THE RTU CONTROLLER. RTU CONTROLLER SHALL MAINTAIN BAS TIME-SCHEDULED OCCUPIED MODE (COMPENSATED BY OPTIMUM START PROGRAM), TEMPORARY OCCUPIED MODE (SET FOR 1-HR. ENABLED FROM OVERRIDE SWITCH ON TEMPERATURE SENSOR), AND UNOCCUPIED CYCLE MODE FROM HEATING/COOLING SETPOINTS AS DOWNLOADED FROM THE BAS.
3. SUPPLY FAN AND EXHAUST FAN STATUS SHALL BE MONITORED BY DDC THRU RESPECTIVE CURRENT SWITCHES. ABNORMAL STATUS CONDITION SHALL ACTIVATE ALARM. RTU SHALL TOTALIZE RUN TIME HOURS OF OPERATION FOR BOTH FANS.
4. RTU CONTROLLER SHALL CONTROL THE DISCHARGE AIR TEMPERATURE SETPOINT. DUCT-MOUNTED HEATING COILS SHALL CONTROL THESPACE TEMPERATURE SETPOINT. OUTSIDE AND RETURN AIR DAMPERS SHALL BE ALLOWED TO MODULATE AS DESCRIBED. IN OPTIMUM START MODE, RTU SHALL MAINTAIN 72°F DAT SETPOINT AND IN COOLING MODE 55°F DAT SETPOINT UNTIL SPACE TEMPERATURE SETPOINT (FROM BACNET) OR OCCUPIED MODE IS REACHED.
5. IN HEATING MODE, RTU SHALL DEACTIVATE DX COOLING AND HOT-GAS REHEAT CONTROL, MODULATE DAMPERS TO THE MINIMUM OA POSITION, AND MAINTAIN DAT SETPOINT. SEE DEHUMIDIFICATION CONTROL HEREIN.
6. IN COOLING MODE, RTU SHALL COMPARE OA ENTHALPY WITH RA ENTHALPY TO PERFORM ECONOMIZER OPERATION. WHEN OA ENTHALPY IS LESS THAN RA ENTHALPY AND OA HUMIDITY IS LESS THAN 60% RH, RTU CONTROLLER SHALL MODULATE DAMPERS MORE OPEN TO OUTSIDE AIR AS 1ST STAGE OF COOLING TO MAINTAIN DAT SETPOINT. WHEN OA DAMPERS ARE FULLY OPEN AND DAT IS STILL ABOVE SETPOINT, RTU SHALL STAGE DX COOLING CONTROL TO MAINTAIN DAT SETPOINT. HOT-GAS REHEAT CONTROL SHALL REMAIN OFF. SEE DEHUMIDIFICATION CONTROL HEREIN.
7. IN COOLING MODE, RTU SHALL COMPARE OA ENTHALPY WITH RA ENTHALPY TO PERFORM ECONOMIZER OPERATION. WHEN OA ENTHALPY IS GREATER THAN RA ENTHALPY OR OA HUMIDITY IS GREATER THAN 60% RH, RTU CONTROLLER SHALL MODULATE DAMPERS TO MINMUM OA POSITION AND STAGE DX COOLING TO MAINTAIN DAT SETPOINT. HOT-GAS REHEAT CONTROL MAY BE USED TO MAINTAIN DAT SETPOINT. SEE DEHUMIDIFICATION CONTROL HEREIN.
8. DEHUMIDIFICATION CONTROL: DURING OCCUPIED MODE, RTU SHALL MONITOR RETURN AIR HUMIDITY. WHEN RETURN AIR HUMIDITY RISES ABOVE 65% RH SETPOINT, RTU SHALL STAGE DX COOLING CONTROL (IF NOT ALREADY ACTIVATED) TO DEHUMIDIFY THE AIR AND MODULATE HOT-GAS REHEAT COIL VALVE TO REHEAT THE DEHUMIDIFIED AIR TO MAINTAIN COIL LEAVING TEMPERATURE SETPOINT OF 54°F. RTU SHALL DEHUMIDIFY THE SPACE UNTIL RA HUMIDITY IS LESS THAN 61% RH SETPOINT.
9. RTU ECONOMIZER CONTROL SHALL ACTIVATE THE POWERED EXHAUST FAN AS REQUIRED WHEN OA DAMPER CONTROL OPENS BEYOND FAN ACTIVATION SETPOINT OF 50% (SETPOINT TO BE ADJUSTED BY TAB CONTRACTOR AS REQUIRED). WHEN RTU IS DEACTIVATED OR OPERATING IN UNOCCUPIED CYCLE MODE OR OPTIMUM START MODE, OA DAMPER SHALL REMAIN CLOSED AND EXHAUST FAN SHALL REMAIN OFF.
10. DISCHARGE AIR TEMP SETPOINT SHALL BE BASED ON THE FOLLOWING OUTDOOR AIR TEMP RESET SCHEDULE:

OAT	DAT
≤ 30°F	60°F
≥ 55°F	55°F

11. FREEZESTAT(S) LOCATED AFTER DUCT-MOUNTED HEATING COILS SHALL DEACTIVATE RTU (SF/EF).
12. DUCT SMOKE DETECTOR(S) SHALL DEACTIVATE RTU (SF/EF) WHEN PRODUCTS OF COMBUSTION ARE DETECTED.
13. FILTER STATUS SHALL BE MONITORED BY RTU THRU DIFFERENTIAL PRESSURE SWITCH. MANUFACTURER SHALL SET DPS SETPOINT BASED ON FILTER MANUFACTURER'S LOADED DATA.
14. WHEN RTU IS DEACTIVATED, SF/EF SHALL SHUT DOWN, OA DAMPER SHALL CLOSE, AND DX COOLING, AND HOT-GAS REHEAT CONTROLS SHALL REMAIN OFF.
15. FOR UNOCCUPIED NIGHT CYCLE CONTROL, RTU SHALL CYCLE ON/OFF BASED ON SPACE TEMPERATURE POLLED THROUGH BACNET. RTU ENERGIZES SF ONLY (EXHAUST FAN REMAINS OFF) AND MIXED AIR DAMPERS REMAIN CLOSED TO OUTSIDE AIR. RTU SHALL RUN UNTIL 2°F DEADBAND FOR UNOCCUPIED SPACE TEMP SETPOINT IS MET.
16. BAS SHALL BE CAPABLE OF ADDITIONAL RTU MONITORING VIA BACNET OPEN PROTOCOL COMMUNICATION LINK AS INDICATED ON DETAIL.

SEQUENCE OF OPERATION

DUCT-MOUNTED HEATING COIL HC-1, 2, & 3 CONTROL:

SEQUENCE OF OPERATION:

1. ALL SETPOINTS INCLUDING RESET SCHEDULE SETPOINTS DESCRIBED IN SEQUENCE SHALL BE ADJUSTABLE BY SYSTEM OPERATORS (CREATE REQUIRED VIRTUAL POINTS). APPROPRIATE DEADBANDS SHALL BE USED TO PREVENT SHORT CYCLING SITUATIONS.
2. DDC SHALL HAVE OCCUPIED/UNOCCUPIED CONTROL CAPABILITY FOR EACH DUCT-MOUNTED HEATING COIL AS SCHEDULED AND COMMANDED THRU THE BAS.
3. DDC SHALL MODULATE THE DUCT-MOUNTED HEATING COIL VALVE TO MAINTAIN SPACE TEMPERATURE SETPOINTS. DUCT-MOUNTED HEATING COIL DISCHARGE AIR TEMP SENSORS SHALL LIMIT THE DAT TO 90°F SETPOINT.
4. SPACE TEMPERATURE SETPOINTS SHALL BE AS FOLLOWS:

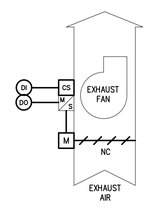
   HEATING UNOCCUPIED SETPOINT = 62°F

   HEATING OCCUPIED SETPOINT = 70°F

   COOLING OCCUPIED SETPOINT = 75°F

   COOLING UNOCCUPIED SETPOINT = N/A

6. FREEZESTAT(S) LCOATED AFTER DUCT-MOUNTED HEATING COILS SHALL DEACTIVATE SUPPLY FAN WHEN TEMPERATURE IS 35°F OR BELOW. DDC SHALL MONITOR FREEZESTAT STATUS AND ACTIVATE ALARM IF CONDITION OCCURS. SEE RTU-2 & 3 DE-ACTIVATION MODE.
7. WHEN THE ASSOCIATED RTU IS OFF (AS POLLED THROUGH BACNET), DDC SHALL MODULATE THE HEATING COIL VALVE TO MAINTAIN 50°F AT DUCT TEMP SENSOR.

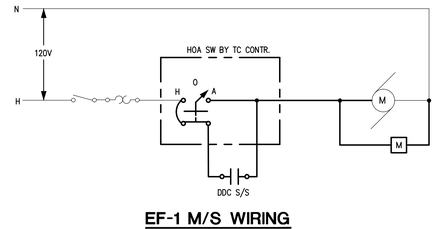


RESTROOM EF-1 CONTROL

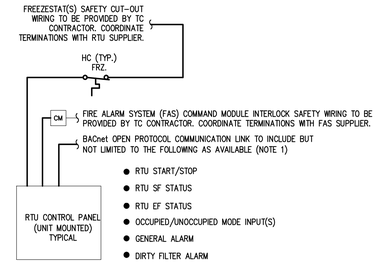
SERVES: RTU-1 ASSOCIATED RESTROOMS

SEQUENCE OF OPERATION:

1. EXHAUST FAN SHALL BE STARTED AND STOPPED BY DDC BASED ON ASSOCIATED BAS TIME OF DAY SCHEDULES OF THE ASSOCIATED ROOFTOP UNIT. IF UNIT IS IN OCCUPIED, EF SHALL RUN. WIRING INTERLOCK SHALL OPEN DAMPERS.
2. DDC SHALL MONITOR EF RUN STATUS THRU CURRENT SWITCH. ABNORMAL STATUS CONDITION SHALL ACTIVATE ALARM. DDC SHALL MONITOR EF RUN STATUS THRU CURRENT SWITCH FOR RUNTIME HOURS OF OPERATION.



EF-1 M/S WIRING



- RTU START/STOP
- RTU SF STATUS
- RTU EF STATUS
- OCCUPIED/UNOCCUPIED MODE INPUT(S)
- GENERAL ALARM
- DIRTY FILTER ALARM
- DISCHARGE AIR LOW-LIMIT ALARM
- SAFETY CUT-OUT ALARM
- OCCUPIED MODE DAT SETPOINT
- UNOCCUPIED MODE ZONE HEATING SETPOINT
- UNOCCUPIED MODE ZONE COOLING SETPOINT
- OUTDOOR AIR TEMPERATURE/HUMIDITY
- RETURN AIR TEMPERATURE/HUMIDITY
- SUPPLY AIR TEMPERATURE
- SPACE TEMP (WRITE POINT FROM BAS)
- OUTDOOR AIR DAMPER MINIMUM SETPOINT
- MIXED AIR DAMPER POSITION
- COOLING MODE STATUS
- COOLING MODE OUTPUT
- ECONOMIZER STATUS
- DEHUMIDIFICATION MODE STATUS
- HOT-GAS REHEAT CONTROL PERCENTAGE
- ECONOMIZER STATUS

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DRAWN BY: JRM
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BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
M8.3WC

JOB NO. 161664A

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ELECTRICAL SYMBOL LIST

(NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT)

SYMBOL	DESCRIPTION
FX	FIXTURE TYPE
	LIGHTING FIXTURE
	DIRECT/INDIRECT LIGHTING FIXTURE
	EMERGENCY FIXTURE
	NIGHT LIGHTING FIXTURE
FX-NL	LIGHTING FIXTURE
	EMERGENCY FIXTURE
	WALL MOUNTED LIGHTING FIXTURE
	LIGHTING FIXTURE
	EMERGENCY FIXTURE
	DIRECTIONAL LIGHTING FIXTURE
	PENDANT LIGHTING FIXTURE
	WALL SCONCE
	LIGHTING TRACK
	TRACK LIGHTING FIXTURE
	POLE MOUNTED LIGHTING FIXTURE
	POLE MOUNTED LIGHTING FIXTURE – POST TOP
	BOLLARD LIGHTING FIXTURE
	EMERGENCY LIGHTING UNIT
	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE)
	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE)
	EXIT LIGHTING FIXTURE – WALL MOUNTED
ELTD	EMERGENCY LOAD TRANSFER DEVICE
S	SINGLE POLE TOGGLE SWITCH
S_2	TWO POLE TOGGLE SWITCH
S_3	3 WAY TOGGLE SWITCH
S_4	4 WAY TOGGLE SWITCH
K	KEY OPERATED SWITCH
K_3	3 WAY KEY OPERATED SWITCH
K_4	4 WAY KEY OPERATED SWITCH
D	DIMMER SWITCH
D_3	3 WAY DIMMER SWITCH
D_O	DIMMER OCCUPANCY SENSOR SWITCH
D_L	LOW VOLTAGE DIMMER SWITCH
S_P	PILOT SWITCH

SYMBOL	DESCRIPTION
TWC	TWO-WAY COMMUNICATION SYSTEM CALL STATION
TWCD	TWO-WAY COMMUNICATION SYSTEM AUTO DIALER
TWCA	TWO-WAY COMMUNICATION SYSTEM ANNUNCIATOR & COMMUNICATION PANEL
TWCP	TWO-WAY COMMUNICATION SYSTEM POWER SUPPLY WITH BATTERY BACK-UP
TWCDP	TWO-WAY COMMUNICATION SYSTEM AUTO DIALER POWER SUPPLY WITH BATTERY BACK-UP
RGP	REMOTE GENERATOR ANNUCIATOR PANEL
ATS	AUTOMATIC TRANSFER SWITCH
UPS	UN-INTERRUPTABLE POWER SUPPLY
CSX	LOW VOLTAGE CONTROL STATION "X" INDICATES TYPE
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	QUAD RECEPTACLE
	ABOVE COUNTER DUPLEX RECEPTACLE (SIMILAR FOR TAMPER RESISTANT, QUADS, EMERGENCY AND GFI RECEPTACLES)
	DUPLEX RECEPTACLE-GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX EMERGENCY RECEPTACLE
	TAMPER RESISTANT RECEPTACLE
	QUAD TAMPER RESISTANT RECEPTACLE
	ABOVE COUNTER DUPLEX TAMPER RESISTANT RECEPTACLE
	DUPLEX UPS RECEPTACLE
	USB RECEPTACLE
	4 PORT USB CHARGING STATION
	CEILING MOUNTED DUPLEX RECEPTACLE
	POWER POLE
	SPECIAL RECEPTACLE – REFER TO ELECTRICAL STANDARD SCHEDULES
	MULTI-OUTLET RACEWAY
"X"	MULTI-SERVICE DROP SEE ELECTRICAL DETAILS AND DIAGRAMS SHEET "X" INDICATES TYPE
PTX	POKE THRU SERVICE FITTING "X" INDICATES TYPE
FBX	FLOOR BOX SERVICE FITTING "X" INDICATES TYPE
AFX	ACCESS FLOOR SERVICE FITTING "X" INDICATES TYPE
RX	CORD REEL "X" INDICATES TYPE
S_S	DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES
$S_S S_3$	3-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES
$S_4 S_4$	4-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES
S_T	DIGITAL TIME SWITCH
S_I	ILLUMINATED TOGGLE SWITCH FOR CONTROL OF LIGHTING ON CRITICAL POWER-ILLUMINATED WHEN SWITCH IS IN "OFF" POSITION
S_L	LOW VOLTAGE SWITCH
S_O	OCCUPANCY SENSOR (REFER TO ELECTRICAL STANDARD SCHEDULES)
S_{O2}	OCCUPANCY SENSOR
OS X	OCCUPANCY SENSOR "X" INDICATES TYPE

SYMBOL	DESCRIPTION
CP	CONTROL PANEL
	MOTOR
VFC	VARIABLE FREQUENCY CONTROLLER.
	MANUAL CONTROLLER
	MAGNETIC CONTROLLER
	COMBINATION MAGNETIC CONTROLLER
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
CB	ENCLOSED CIRCUIT BREAKER
	PUSH BUTTON STATION
J	JUNCTION BOX
	HARD WIRE POWER CONNECTION
DP	AUTOMATIC DOOR CONTROLLER
PP	AUTOMATIC DOOR PUSH PAD OPERATOR
	GROUND ROD
	GROUND CONNECTION
X	CONDUIT SLEEVE WITH BUSHINGS LENGTH AS REQUIRED "X" INDICATES CONDUIT SIZE
	CONDUIT UP
	CONDUIT DOWN
	EMPTY BOX FOR FUTURE TELECOMMUNICATION OUTLET (REFER TO ELECTRICAL STANDARD SCHEDULES)
	ABOVE COUNTER EMPTY BOX FOR FUTURE TELECOMMUNICATION OUTLET (REFER TO ELECTRICAL STANDARD SCHEDULES)
	EMPTY BOX FOR FUTURE CEILING MOUNTED TELECOMMUNICATION OUTLET (REFER TO ELECTRICAL STANDARD SCHEDULES)
X	TELECOMMUNICATION OUTLET "X" INDICATES TYPE (REFER TO ELECTRICAL STANDARD SCHEDULES)
X	ABOVE COUNTER TELECOMMUNICATION OUTLET "X" INDICATES TYPE (REFER TO ELECTRICAL STANDARD SCHEDULES)
X	TELECOMMUNICATION CEILING MOUNTED OUTLET "X" INDICATES TYPE (REFER TO ELECTRICAL STANDARD SCHEDULES)
	TELECOMMUNICATION BACKBOARD
TGB	TELECOMMUNICATION GROUNDING BUS BAR
TMGB	TELECOMMUNICATION MAIN GROUNDING BUS BAR
IC	INTERCOM OUTLET
S	SPEAKER
S	SPEAKER – WALL MOUNTED
MIC	MICROPHONE
VC	VOLUME CONTROL/STATION SELECTOR
B	SIGNALING BELL
	SINGLE FACE CLOCK – CEILING MOUNTED
	SINGLE FACE CLOCK – WALL MOUNTED
	DOUBLE FACE CLOCK – CEILING MOUNTED
S	DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED
S	DOUBLE FACE COMBINATION CLOCK/SPEAKER WALL MOUNTED
TC	TIME CLOCK
C	CONTACTOR
P	PHOTOCELL
TT	TWIST TIMER

SYMBOL	DESCRIPTION
	SECURITY CAMERA
MD	MOTION DETECTOR
K	SECURITY KEY SWITCH
DC	DOOR CONTACT
KP	KEY PAD
CR	ACCESS CONTROL STATION
DB	DURESS PUSH BUTTON STATION
DE	DELAYED EGRESS
REX	REQUEST TO EXIT STATION
	CIRCUIT BREAKER
	DRAWOUT CIRCUIT BREAKER MANUALLY/ OPERATED
	DRAWOUT CIRCUIT BREAKER ELECTRICALLY/ OPERATED
	SWITCH
	AUTOMATIC OR MANUAL TRANSFER SWITCH
	FUSE
	TRANSFORMER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	LIGHTNING ARRESTOR
X	PANELBOARD "X" INDICATES PANELBOARD NAME
	GROUND
	STRESS CONE TERMINATION
K	SECURITY KEY INTERLOCK
G	ENGINE GENERATOR
M	UTILITY METER
EMU	ELECTRONIC METERING UNIT
A	AMMETER
V	VOLTMETER
AS	AMMETER SWITCH
VS	VOLTMETER SWITCH
SPD	SURGE PROTECTIVE DEVICE
CR	CONTROL RELAY
TDR	TIME DELAY RELAY
	THERMAL OVERLOAD RELAY
	NORMALLY OPEN CONTACTS
	NORMALLY CLOSED CONTACTS
	N.O. PUSH BUTTON SINGLE CIRCUIT
	N.C. PUSH BUTTON SINGLE CIRCUIT
X-X	CABLE VAULT "X-X" INDICATES TYPE
	BRANCH CIRCUIT PANELBOARD
	MOTOR CONTROL CENTER
T	TRANSFORMER
	DISTRIBUTION PANEL
GB	GROUND BUS
PB	PLUG IN BUSWAY
FB	FEEDER BUSWAY

SYMBOL	DESCRIPTION
F	MANUAL FIRE ALARM BOX
SD	SMOKE DETECTOR
DD	DUCT SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
RT	REMOTE TEST STATION (FOR DUCT DETECTOR)
TD	THERMAL DETECTOR
BD	PROJECTED BEAM DETECTOR
F	FIRE ALARM BELL
F	FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE
XX	FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
XX	FIRE ALARM COMBINATION VISUAL/ AUDIBLE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
F XX	FIRE ALARM COMBINATION VISUAL/ AUDIBLE NOTIFICATION APPLIANCE– CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
XX	FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
F	FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE – CEILING MOUNTED
F	FIREFIGHTERS PHONE JACK
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
NAC	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL
IM	ADDRESSABLE MONITORING MODULE
CM	ADDRESSABLE CONTROL MODULE
TS	TAMPER SWITCH
FS	FLOW SWITCH
DR	MAGNETIC DOOR RELEASE

ELECTRICAL DRAWING INDEX

SHEET NO.	SHEET TITLE
E0.1WC	ELECTRICAL STANDARDS AND DRAWING INDEX
E0.2WC	ELECTRICAL STANDARD SCHEDULES
E0.3WC	ELECTRICAL SITE PLAN – ALTERNATE E1W
ED1.1AWC	AREA 'A' ELECTRICAL DEMOLITION PLAN
ED1.1BWC	AREA 'B' ELECTRICAL DEMOLITION PLAN
E2.1AWC	AREA 'A' LIGHTING NEW WORK PLAN
E2.1BWC	AREA 'B' LIGHTING NEW WORK PLAN
E3.1AWC	AREA 'A' POWER NEW WORK PLAN
E3.1BWC	AREA 'B' POWER NEW WORK PLAN
E5.1WC	ONE LINE DIAGRAMS
E7.1WC	ELECTRICAL DETAILS
E7.2WC	ELECTRICAL DETAILS

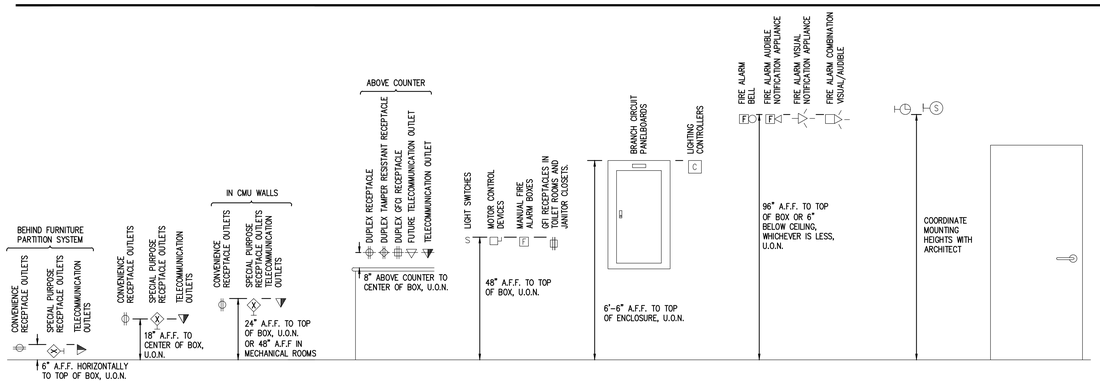
ELECTRICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
A	AMPERES
AF	AMPERES FRAME (BREAKER RATING)
A.F.F.	ABOVE FINISH FLOOR
AIC	AMPS INTERRUPTING CAPACITY
AL	AUDIENCE LEFT
AR	AUDIENCE RIGHT
AT	AMPERES TRIP (BREAKER SETTING)
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
BKR	BREAKER
BPS	BOLTED PRESSURE SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
DEMO	DEMOLITION
DIM	DIMENSION
DISC	DISCONNECT
DP	DISTRIBUTION PANEL
DS	DOWNSTAGE
DWG	DRAWING
EBU	EMERGENCY BATTERY UNIT
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EM/ EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EO	ELECTRICALLY OPERATED
EPO	EMERGENCY POWER OFF
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
FA	FIRE ALARM
FLA	FULL LOAD AMPS
FLR	FLOOR
FOH	FRONT OF HOUSE
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FU	FUSE

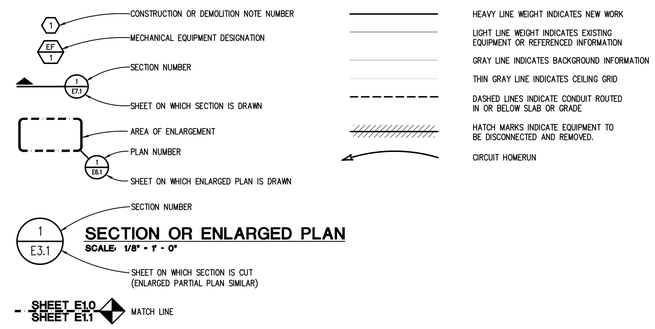
ABBREVIATION	DESCRIPTION
G/GRD/EG	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT – AMPERES
KW	KILOWATT
KWH	KILOWATT – HOURS
LA	LIGHTNING ARRESTOR
LP	LIGHTING PANEL
LDP	LIGHTING DISTRIBUTION PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MIN	MINIMUM
MISC.	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTR	MOTOR
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSIBLE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE

ABBREVIATION	DESCRIPTION
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
P	POLE
PB	PUSHBUTTON STATION
PH	PHASE
PT	POTENTIAL TRANSFORMER
PDP	POWER DISTRIBUTION PANEL
RECEPT.	RECEPTACLE
RDP	RECEPTACLE DISTRIBUTION PANEL
RP	RECEPTACLE PANEL
RSC	RIGID STEEL CONDUIT
SCHED	SCHEDULE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TB	TERMINAL BOX
TELECOM	TELECOMMUNICATIONS
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BACKBOARD
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
US	UPSTAGE
V	VOLTS
W	WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
(E)	EXISTING
(R)	RELOCATED

STANDARD MOUNTING HEIGHTS



STANDARD METHODS OF NOTATION



SECTION OR ENLARGED PLAN
SCALE: 1/8" = 1' - 0"

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

ELECTRICAL STANDARDS AND DRAWING INDEX

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.: E0.1WC

JOB NO: 161664A

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WOODCREEK LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURERS	LAMPS
L1 MAIN ENTRANCE	LED 6 INCH APERTURE RECESSED DOWN LIGHT FIXTURE: LENSED AND GASKETED. VANDAL RESISTANT. WHITE TRIM RING. SEMI SPECULAR, TEMPERED PRISMATIC GLASS LENS. WARM WHITE LED SOURCE WITH MAXIMUM COLOR TEMPERATURE DIFFERENTIATION OF ± 100K. VENTILATED DIE CAST ALUMINUM HEAT SINK, SELF FLANGED REFLECTOR WITH MATTE FINISH. MULTI VOLT DRIVER, AC INPUT. CLASS P, SOLID STATE, RATED FOR MINIMUM 50,000 HOURS OF OPERATION. 5 YEAR WARRANTY.	1. FAIL-SAFE FERM6A SERIES 2. GOTHAM EVO VR SERIES 3. PEACHTREE BLRD VR SERIES 4. VANTAGE VWR SERIES 5. WILLIAMS L60 SERIES	LED 4000K WHITE 4000 LUMENS 80 CRI
L2 OFFICE	LED 2X4 RECESSED CENTER BASKET LIGHT FIXTURE: DIE CAST ALUMINUM HEAT SINK MULTI VOLT DRIVER AC INPUT, CLASS P SOLID STATE, RATED FOR A MINIMUM OF 50,000 HOURS OF OPERATION. 5 YEAR FULL COVER WARRANTY.	1. LITHONIA 2VTL SERIES 2. METALUX 24CZ SERIES 3. VISIONEERING LRTM SERIES 4. DAY-BRITE 2EV SERIES 5. WILLIAMS CDA SERIES	LED 4000K WHITE 4000 LUMENS 80 CRI MINIMUM
L3 RESTROOM	LED 1X4 RECESSED LIGHT FIXTURE: DIE FORMED WELDED STEEL HOUSING. ELECTROSTATICALLY APPLIED WHITE POWDER COAT FINISH. 18 GAUGE STEEL DOOR FRAME, ONE PIECE WITH DIE FORMED EDGES, AIRCRAFT CABLE TETHER FROM DOOR FRAME TO FIXTURE. STAINLESS STEEL TAMPER RESISTANT T20 TORX SCREWS. PROVIDED (2) SCREW DRIVERS FOR OWNER. LENS SHALL BE PRISMATIC POLYCARBONATE. DIE CAST ALUMINUM HEAT SINK, MULTI VOLT DRIVER AC INPUT, CLASS P SOLID STATE RATED FOR A MINIMUM OF 50,000 HOURS OF OPERATION. 5 YEAR WARRANTY. PROVIDE WITH MUD FLANGE FOR GYP CEILING.	1. KENALL HASEDI SERIES 2. FAIL-SAFE FSR SERIES 3. NEWSTAR 37M14 SERIES 4. WILLIAMS 50 SERIES 5. DAYBRITE 1LT SERIES	LED 4000K WHITE 2000 LUMENS 80 CRI MINIMUM
L4 CORRIDORS	LED 2X4 RECESSED LAY IN LIGHT FIXTURE: 3-1/4" DEEP HOUSING. DIE CAST ALUMINUM HEAT SINK MULTI VOLT DRIVER AC INPUT, CLASS P SOLID STATE, RATED FOR A MINIMUM OF 50,000 HOURS OF OPERATION. 5 YEAR FULL COVER WARRANTY.	1. METALUX GRLED SERIES 2. LITHONIA 2GTL SERIES 3. VISIONEERING LRTA SERIES 4. DAY-BRITE 2GT SERIES 5. WILLIAMS 50 SERIES	LED 4000K WHITE 4000 LUMENS 80 CRI MINIMUM
L5 CORRIDORS	LED 6 INCH APERTURE RECESSED DOWN LIGHT FIXTURE: WARM WHITE LED SOURCE WITH MAXIMUM COLOR TEMPERATURE DIFFERENTIATION OF ± 100K. VENTILATED DIE CAST ALUMINUM HEAT SINK, SELF FLANGED REFLECTOR WITH MATTE FINISH. MULTI VOLT DRIVER, AC INPUT. CLASS P, SOLID STATE, RATED FOR MINIMUM 50,000 HOURS OF OPERATION. 5 YEAR WARRANTY.	1. FAIL-SAFE FERM6A SERIES 2. GOTHAM EVO SERIES 3. PEACHTREE BLRD SERIES 4. CALCULITE C6L SERIES 5. WILLIAMS L60 SERIES	LED 4000K WHITE 1400 LUMENS 80 CRI MINIMUM
L6 CANOPY	LED SURFACE MOUNTED CANOPY FIXTURE: 12" SQUARE, 3" DEEP SURFACE MOUNTED CANOPY FIXTURE; DIE FORMED ALUMINUM HOUSING; UV RESISTANT POLYESTER POWDER COAT FINISH; TYPE V DISTRIBUTION; FULLY GASKETED AND WET LOCATION LISTED.	1. BARRON TRACE-LITE TLED SERIES 2. GARDCO SFC SERIES 3. KENALL MS11FL SERIES 4. ENGINEER APPROVED EQUAL	LED 4000K WHITE 80 CRI MINIMUM 2,500 LUMENS MINIMUM
L7 EXTERIOR WALL	LED ARCHITECTURAL TRAPEZOIDAL WALL PACK LIGHT FIXTURE: FORWARD THROW, WEATHER RESISTANT ALUMINUM HOUSING WITH INTEGRAL WEATHER TIGHT LED DRIVER WITH HIGH PERFORMANCE ALUMINUM HEAT SINKS. U.L. LISTED FOR WET LOCATIONS. FIXTURE SHALL BE COMPLETELY GASKETED, MULTI VOLT DRIVER AC INPUT, CLASS P SOLID STATE, RATED FOR A MINIMUM 50,000 HOURS OF OPERATION. 5 YEAR WARRANTY. BLACK COLOR.	1. LITHONIA WST-LED SERIES 2. MCGRAW-EDISON IST B01 SERIES 3. SPAULDING TRP SERIES 4. GARDCO 121 SERIES 5. LSI SWP SERIES	LED 4000K WHITE 2000 LUMENS 80 CRI MINIMUM
L8 PARKING LOT	LED POLE MOUNTED PARKING LOT LIGHT FIXTURE: POLE TOP CONFIGURATION AS SHOWN ON PLAN. TYPE (4) DISTRIBUTION. FULLY GASKETED ALUMINUM HOUSING WITH INTEGRAL WEATHER TIGHT ELECTRONIC 208V, 1PH LED DRIVER THAT IS U.L. LISTED FOR WET LOCATIONS. FUSED AT HAND HOLE. PROVIDE NEW MOUNTING ARM(S) AS REQUIRED. FIXTURE COLOR SHALL BE BLACK WITH A 10 YEAR WARRANTY. PROVIDE WITH HOUSE SIDE SHIELD.	1. LITHONIA D SERIES 2. CREE OSQ SERIES 3. COOPER GALLEON SERIES 4. GARDCO EGF SERIES 5. LSI MIRADA SERIES	LED 4000K WHITE 80 CRI MINIMUM 20,000 LUMENS MINIMUM
X	EXIT LIGHT SHALL BE MOUNTED AS REQUIRED, WITH WHITE DIE CAST ALUMINUM HOUSING, HIGH OUTPUT LED DIFFUSE LIGHT PANEL, SINGLE STENCIL WHITE FACE WITH RED LETTERS AND SUITABLE FOR MULTI VOLT (FUSED) OPERATION. PROVIDE DIRECTIONAL ARROW AS INDICATED ON PLAN.	1. LITHONIA SIGNATURE SERIES 2. SURELITE CX SERIES 3. DUAL LITE SE SERIES 4. CHLORIDE CE SERIES 5. WILLIAMS CA SERIES	LED LIGHT PANEL

ALL LED FIXTURES SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
MULTI VOLT DRIVER, MINIMUM OF 50,000 HOURS OPERATION WITH GREATER THAN 70% DELIVERED LUMEN OUTPUT.
DELIVERED LUMENS NOT JUST LUMENS WITHIN 3% OF SCHEDULE LUMENS.
INDOOR DRIVERS SHALL BE RATED FOR A MINIMUM 65°C.
OUTDOOR DRIVERS SHALL BE RATED FOR MINIMUM -20°C.
DRIVER SHALL BE LABELED TO COMPLY WITH NEMA SSL1, AND THD OF LESS THAN 20%.
DRIVER SHALL BE SERVICABLE FROM BELOW CEILING.
DRIVER SHALL BE LABELED TO COMPY WITH DESIGNLIGHTS CONSORTIUM.
FIXTURE SHALL COMPLY WITH IES STANDARDS LM-79 AND LM-80.
DRIVER AND LED FIXTURE SHALL HAVE MINIMUM 5 YEAR WARRANTY.

FLOOR SERVICE FITTING ASSEMBLY SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER (SEE NOTE #2)	DEVICE CONFIGURATION	FLANGE/COVER MATERIAL & COLOR	SERVICE PLATE TYPE	MINIMUM DEPTH	MAXIMUM CONDUIT
FB1	POWER SINGLE GANG FLOOR BOX FLUSH SERVICE, GANGABLE, 1 DUPLEX WITH FLIP DOOR	WIREMOLD 885B	GFI	BS	FR	2 7/16"	3/4"
FB2	POWER SINGLE GANG FLOOR BOX FLUSH SERVICE, GANGABLE, 1 RECEPTACLE WITH FLIP DOOR	WIREMOLD 885B	NEMA L6-30R	BS	FR	2 7/16"	3/4"
FB3	MULTI SERVICE TWO GANG FLOOR BOX FLUSH SERVICE, GANGABLE, 1 DUPLEX, 1 TELECOM WITH FLIP DOOR	WIREMOLD 880S2	GFI T	BS	FR	3 7/16"	1"

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS ARE STEEL CITY, OR HUBBELL-RACO.
2. ALL PRODUCTS IN THIS SCHEDULE SHALL MEET AND EXCEED THE UL514A or UL514C SCRUB WATER EXCLUSION REQUIREMENT.

ABBREVIATIONS:
GFI = GFCI RECEPTACLE BS = BRASS FR = FLIP LID/RECTANGULAR
D = DUPLEX RECEPTACLE
T = FUTURE TELECOM OUTLET

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

OCCUPANCY SENSOR LEGEND

TYPE	DESCRIPTION
OS A	360° CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
OS B	90° CEILING/WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
OS C	360° CEILING MOUNTED DUAL TECHNOLOGY HIGH BAY OCCUPANCY SENSOR
OS D	360° CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR
OS E	360° CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR - CORRIDOR OPTIMIZED
So	WALL SWITCH PASSIVE INFRARED OCCUPANCY SENSOR
So2	WALL SWITCH PASSIVE INFRARED OCCUPANCY SENSOR - DUAL LEVEL SWITCHING
Do	WALL DIMMER SWITCH INFRARED OCCUPANCY SENSOR

MOTOR CIRCUIT SIZING SCHEDULE (208V, 3 PHASE)

MOTOR HP	SWITCH/ FUSE	CIRCUIT BREAKER	STARTER SIZE/TYPE	MOTOR DISCONNECT (NOTE 3)
1/2	30/6A	15A	1	30A
3/4	30/6A	15A	1	30A
1	30/10A	15A	1	30A
1 1/2	30/10A	15A	1	30A
2	30/10A	15A	1	30A
3	30/20A	20A	1	30A
5	30/25A	35A	1	30A
7 1/2	60/40A	50A	1	60A
10	60/50A	60A	2	60A
15	60/60A	90A	3	60A
20	100/90A	100A	3	100A
25	100/100A	110A	3	100A
30	200/125A	125A	4	200A
40	200/175A	175A	4	200A
50	200/200A	200A	5	200A
60	400/250A	250A	5	400A
75	400/300A	300A	5	400A
100	400/400A	400A	6	400A
125	600/500A	600A	6	600A
150	600/600A	600A	6	600A

NOTES:
1. BASED ON MOTOR FULL LOAD AMPERES AS PROVIDED BY THE N.E.C.
2. BASED ON MOTOR RUNNING OVERLOAD PROTECTIONS PROVIDED BY THERMAL OVERLOAD RELAYS.
3. WHERE THE STARTER IS LOCATED REMOTE FROM THE MOTOR, PROVIDE DISCONNECT LOCATED AT THE MOTOR, SIZE AS INDICATED.

DTE LIGHTING INCENTIVES PROGRAM

THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN HIS BID AND BE RESPONSIBLE FOR PROVIDING AND MEETING ALL REQUIREMENTS FOR THE OWNER TO PARTICIPATE IN THE CURRENT DTE ENERGY SAVINGS PROGRAM. THE FOLLOWING ITEMS WILL BE REQUIRED BUT NOT LIMITED TO, FOR THE OWNER TO PARTICIPATE IN THIS PROGRAM:

1. ON BEHALF OF THE OWNER, PROVIDE ALL REQUIRED INFORMATION FOR THE RESERVATION APPLICATION AND THE FINAL APPLICATION. REFER TO DTE ENERGY PROGRAM APPLICATION AT www.dteenergy.com/savenow.
2. CONTRACTOR BUSINESS INFORMATION.
3. LIGHTING INCENTIVES WORKSHEET/CUSTOM INCENTIVE WORKSHEET, AS REQUIRED.
4. TYPE OF FIXTURES REMOVED, WATTAGE AND LAMP SIZE.
5. EASY TO READ ITEMIZED INVOICES WITH PART NUMBERS OF ALL LIGHT FIXTURES, BALLASTS AND LAMPS.
6. MANUFACTURERS CUT SHEETS WITH HIGHLIGHTED FIGURES, BALLAST, LAMPS, TYPE OF FIXTURE, ETC. AS REQUIRED BY DTE.
7. MEASURES ARE COMPLETELY INSTALLED WITHIN 90 DAYS OF PROJECT APPROVAL.

IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO CONTACT DTE'S ENERGY SAVINGS TEAM OR ASSIGNED REPRESENTATIVE IF A PROJECT IS DELAYED, OR SUBSTANTIALLY CHANGED.

THE ELECTRICAL CONTRACTOR SHALL WORK WITH AND COORDINATE WITH THE OWNER FOR THE RESERVATION AND FINAL APPLICATION PROCESS PRIOR TO SITE WORK BEING CONDUCTED AND POST REVIEW INSPECTION FOR REMOVAL AND INSTALLATION OF ALL EQUIPMENT RELATED TO THE INCENTIVE PROGRAM.

RACEWAY APPLICATION SCHEDULE

RACEWAY		AC/MC CABLE	ALUMINUM RIGID CONDUIT	ELECTRICAL METALLIC TUBING (EMT)	SURFACE RACEWAY	ELECTRICAL NONMETALLIC TUBING (ENT)	FLEXIBLE METAL CONDUIT (FMC)	GENERAL-USE OPTICAL FIBER/COMMUNICATION CABLE RACEWAY	INTERMEDIATE METAL CONDUIT (IMC)	LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)	LIQUIDTIGHT FLEXIBLE NONMETAL CONDUIT (LFNC)	PLENUM-TYPE OPTICAL FIBER/COMMUNICATIONS CABLE RACEWAY	RIGID STEEL CONDUIT	RISER-TYPE OPTICAL FIBER/COMMUNICATIONS CABLE RACEWAY	RIGID NONMETALLIC CONDUIT (RNC) TYPE EPC-40	RIGID NONMETALLIC CONDUIT (RNC) TYPE EPC-80	HIGH DENSITY POLYTHYLENE (HDPE) SCHEDULE 40	HIGH DENSITY POLYTHYLENE (HDPE) SCHEDULE 80	KEYED NOTES
OUTDOOR	EXPOSED								X				X						
	CONCEALED (ABOVE GROUND)								X				X						
	UNDERGROUND												X		X	X	X	X	
	CONNECTED TO VIBRATING EQUIPMENT								X										EQUIPMENT INCLUDING: TRANSFORMERS, HYDRAULIC PNEUMATIC, ELECTRIC SOLENOID, MOTOR DRIVEN EQUIPMENT
INDOOR	EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE - UNFINISHED SPACES			X															
	EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE - FINISHED SPACES				X														
	EXPOSED SUBJECT TO SEVERE PHYSICAL DAMAGE								X				X						RIGID STEEL CONDUIT UP TO 10'-0"AFF. LOCATIONS INCLUDE: LOADING DOOKS, CORRIDORS USED FOR TRAFFIC OF MECHANIZED CARTS AND PALLET HANDLING UNITS, MECHANICAL ROOMS
	CONCEALED IN CEILINGS, INTERIOR WALL AND PARTITIONS	X		X															NOT TO EXCEED 6'-0" IN CEILING SPACE
	CONNECTED TO VIBRATING EQUIPMENT					X			X										EQUIPMENT INCLUDING: TRANSFORMERS, HYDRAULIC PNEUMATIC, ELECTRIC SOLENOID, MOTOR DRIVEN EQUIPMENT USE LFMC IN DAMP/WET LOCATIONS
	DAMP AND WET LOCATIONS								X				X						
	BELOW SLAB IN GRADE														X	X			PROVIDE RIGID STEEL ELBOWS WHERE CONDUIT PENETRATES SLAB. CONDUIT INSTALLED 6" BELOW BOTTOM OF SLAB
	EMBEDDED IN CONCRETE ABOVE GRADE												X		X	X			
	OPTICAL FIBER OR COMMUNICATIONS CABLE IN SPACES USED FOR ENVIRONMENTAL AIR			X								X							
	CONCEALED GENERAL PURPOSE DISTRIBUTION OF OPTICAL FIBER OR COMMUNICATION CABLE			X				X				X		X					
SPECIAL APPLICATIONS	MRI		X																
	NATATORIUMS/FOUNTAINS			X															USE COMPRESSION FITTINGS. PAINTED WITH CORROSION RESISTANT PAINT BY PAINTING CONTRACTOR.

GENERAL NOTES:
1. 'X' INDICATES ACCEPTABLE SELECTION.
2. REFER TO "CONDUCTORS AND CABLES" SPECIFICATION FOR APPLICATION LIMITATIONS OF AC/MC CABLE.

FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE

OVERCURRENT DEVICE RATING (AMPERES)	WIRE SIZE (AWG OR KCMIL)		COPPER CONDUCTORS CONDUIT SIZE			
	PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH, 1N, 1G)	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH, 1N, 1G)
15-20	12	12	3/4"	3/4"	3/4"	3/4"
25-30	10	10	3/4"	3/4"	3/4"	3/4"
35-40	8	10	3/4"	3/4"	3/4"	3/4"
* 45-50	8 (6)	10	3/4"	3/4"	3/4"	3/4"
* 60	6 (4)	10	3/4" (1")	3/4" (1")	3/4" (1")	1" (1 1/4")
70	4	8	1"	1 1/4"	1 1/4"	1 1/4"
* 80	4 (3)	8	1"	1 1/4"	1 1/4"	1 1/4"
* 90-100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"	1 1/4"
* 110	2 (1)	6	-	1 1/4"	1 1/4"	1 1/4" (1 1/2")
* 125	1 (1/0)	6	-	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"
150	1/0	6	-	1 1/2"	1 1/2"	1 1/2"
175	2/0	6	-	2"	2"	2"
200	3/0	6	-	2"	2"	2 1/2"
225	4/0	4	-	2"	2"	2 1/2"
250	250	4	-	2 1/2"	2 1/2"	2 1/2"
300	350	4	-	2 1/2"	2 1/2"	3"
350	500	3	-	3"	3"	3"
400	500	3	-	3"	3"	3"

* = SEE NOTE 4

NOTES:
1. CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
2. CONTRACTOR MAY COMBINE 20A CIRCUITS AS NOTED IN SPECIFICATION.
3. CONDUCTORS ARE BASED ON THHN/THWN UP TO AND INCLUDING #4/0. LARGER THAN #4/0 ARE BASED ON TYPE XHHW.
4. CONDUCTORS ARE BASED ON 90°C, 600V, INSULATED COPPER WIRE APPLIED AT 75°C FOR TERMINATION RATED 60/75°C OR 75°C. FOR TERMINATION RATED AT 60°C, USE CONDUCTORS AND CONDUIT SIZES INDICATED IN PARENTHESES.
5. CONDUIT SIZES ARE VALID FOR EMT OR RGS. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHER TYPES OF CONDUIT.
6. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE REQUIRED WIRE SIZES TO ACCOMMODATE MECHANICAL EQUIPMENT LUG SIZES.
7. SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
8. OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.
9. SPLICE FROM ALUMINUM TO COPPER PRIOR TO ENTERING EQUIPMENT LISTED FOR USE WITH COPPER CONDUCTORS ONLY OR USE COPPER CONDUCTORS FOR THE ENTIRE LENGTH OF FEEDER.

BRANCH CIRCUIT VOLTAGE DROP WIRING SCHEDULE FOR SINGLE PHASE CIRCUITS

BRANCH CKT RATING (A)	WIRE SIZE (AWG)	MAXIMUM BRANCH CIRCUIT LENGTH (IN FEET) 120V	208V	240V	277V	480V
20A	12	83	143	165	191	331
	10	128	222	256	295	511
	8	201	348	402	464	804
	6	313	542	625	721	1250
30A	10	85	148	170	197	341
	8	134	232	268	309	536
	6	208	361	417	481	833
	4	313	542	625	721	1250

NOTES:
1. THE ABOVE TABLE VALUES ARE BASED ON COPPER CONDUCTORS, IN STEEL CONDUIT, WITH A LOAD POWER FACTOR OF 0.85 PER NEC CHAPTER 9, TABLE 9.
2. PROVIDE BRANCH CIRCUIT CONDUCTORS AS INDICATED IN THE TABLE ABOVE FOR ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS. WHERE BRANCH CIRCUITS SERVE DEDICATED EQUIPMENT, THE CONTRACTOR MAY PERFORM VOLTAGE DROP CALCULATIONS BASED ON ACTUAL EQUIPMENT CONNECTED LOAD AND PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
3. CONDUCTOR SIZES ARE BASED ON MAXIMUM OF 9 CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
4. LIMITS FOR CONDUCTOR LENGTHS SHOWN ARE BASED ON A MAXIMUM BRANCH CIRCUIT LOADING OF 64% OF THE BRANCH BREAKER RATING AND A MAXIMUM OF 3 PERCENT VOLTAGE DROP TO COMPLY WITH ASHRAE 90.1 AND THE NEC. FOR CIRCUITS LOADED GREATER THAN 64% OF BRANCH BREAKER RATING, THE CONTRACTOR SHALL PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO 3%.

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PBA Project No.: 2015.0143.07

FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

ELECTRICAL STANDARD SCHEDULES

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
E0.2WC

JOB NO. 161664A

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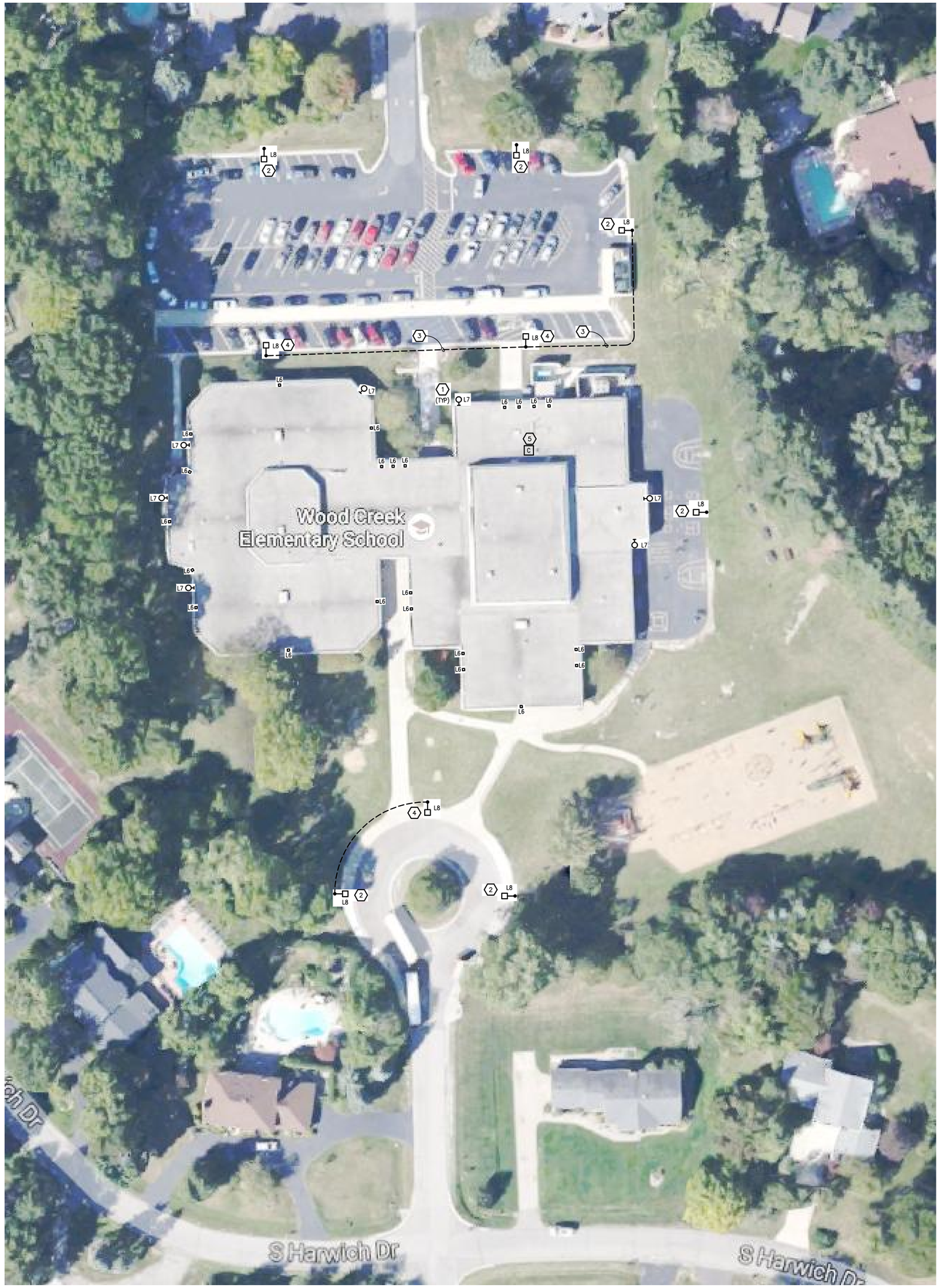

GENERAL NOTES:

1. THESE NOTES ARE GENERIC GUIDELINES ONLY. ELECTRICAL CONTRACTOR'S PERSONNEL ON SITE SHALL BE THOROUGHLY FAMILIAR WITH THE PUBLISHED SPECIFICATIONS FOR EXACT DESCRIPTIONS OF SCOPE, METHODS, AND MATERIAL.
2. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
3. CONDUCT A SURVEY TO IDENTIFY ALL UNDERGROUND UTILITIES. CALL 811 PRIOR TO EXCAVATION.
4. UTILITIES SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. COORDINATE EXACT LOCATION OF ALL EXISTING UTILITIES, AND ROUTING OF ALL NEW UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
5. DEWATER TRENCHES PRIOR TO INSTALLATION OF CONDUITS. PROVIDE WATER TIGHT FITTINGS ON ALL UNDERGROUND CONDUITS.
6. COORDINATE DEMOLITION WORK, AND ELECTRICAL AND TELEPHONE SERVICES TO THE SITE, WITH THE RESPECTIVE LOCAL UTILITY COMPANY REPRESENTATIVES PRIOR TO COMMENCEMENT OF WORK. INCLUDE ALL ASSOCIATED COST/FEES BY THE UTILITY COMPANIES IN THE BID PRICE.
7. INSTALL UNDERGROUND CONDUITS 42" BELOW FINISHED GRADE, MINIMUM, UNLESS NOTED OTHERWISE.
8. COORDINATE SERVICE SHUT-DOWNS WITH ALL TRADES INVOLVED ON SITE AND OBTAIN WRITTEN AUTHORIZATION FROM OWNER 72 HOURS PRIOR TO ANY ELECTRICAL AND/OR TELEPHONE SHUT-DOWN.
9. REMOVE ALL DE-ENERGIZED CONDUCTORS FROM SITE AT COMPLETION OF THE PROJECT.
10. OUTDOOR LIGHTING BRANCH CIRCUIT WIRING SHALL BE MINIMUM #8 AWG CONDUCTORS (XHHW), IN MINIMUM 1" DIA. CONDUIT, UNLESS NOTED OTHERWISE.
11. SPARE CONDUITS SHALL INCLUDE PULL STRING AND SHALL BE TERMINATED WITH A CAP.
12. EXCAVATE THE ENTIRE LENGTH OF TRENCH TO PROPERLY SET DUCT ELEVATIONS.

CONSTRUCTION KEY NOTES:

1. REMOVE EXISTING LIGHT FIXTURE AND PROVIDE NEW AS INDICATED. CIRCUIT NEW FIXTURE TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
2. REMOVE EXISTING LIGHT FIXTURE HEAD AND PROVIDE NEW AS INDICATED. EXISTING POLE TO REMAIN. DRILL POLE AS REQUIRED TO ALLOW FOR NEW MOUNTING BRACKET. CIRCUIT FIXTURE HEAD TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
3. EXTEND EXISTING 208V, 1PH BRANCH CIRCUIT TO NEW POLE MOUNTED LIGHT FIXTURE. MATCH NEW CONDUIT AND WIRE SIZE TO EXISTING. FIELD VERIFY EXISTING CONDUIT AND WIRE SIZE. DIRECTIONAL BORE UNDERNEATH EXISTING CONCRETE AS REQUIRED.
4. PROVIDE NEW 20' TALL, 5" DIAMETER, ROUND TAPERED POLE AND CONCRETE BASE TO MATCH EXISTING AT NEW FIXTURE LOCATION. PROVIDE FIXTURE HEAD AS INDICATED. POLE COLOR SHALL MATCH EXISTING. PROVIDE WITH SQUARE BOLT COVER AND VIBRATION ISOLATION DAMPENER.
5. REMOVE EXISTING TIME CLOCK AND PROVIDE NEW LIGHTING CONTACTOR. REWORK EXISTING BRANCH CIRCUITS FED FROM PANEL A AND PANEL Z AT SAME LOCATION AS REQUIRED TO BE FED THROUGH CONTACTOR. NEW CONTACTOR TO BE CONTROLLED BY EXISTING BUILDING MANAGEMENT SYSTEM. REFER TO DETAIL ON E7 SERIES DRAWINGS.

Know what's **below.**
Call before you dig.

ELECTRICAL SITE PLAN - ALTERNATE E1W

SCALE: 1" = 30'
SCALE IS APPROXIMATE. SITE PLAN IS FROM AN AERIAL IMAGE

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
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ELECTRICAL SITE PLAN - ALTERNATE E1W

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
E0.3WC

JOB NO. 161664A

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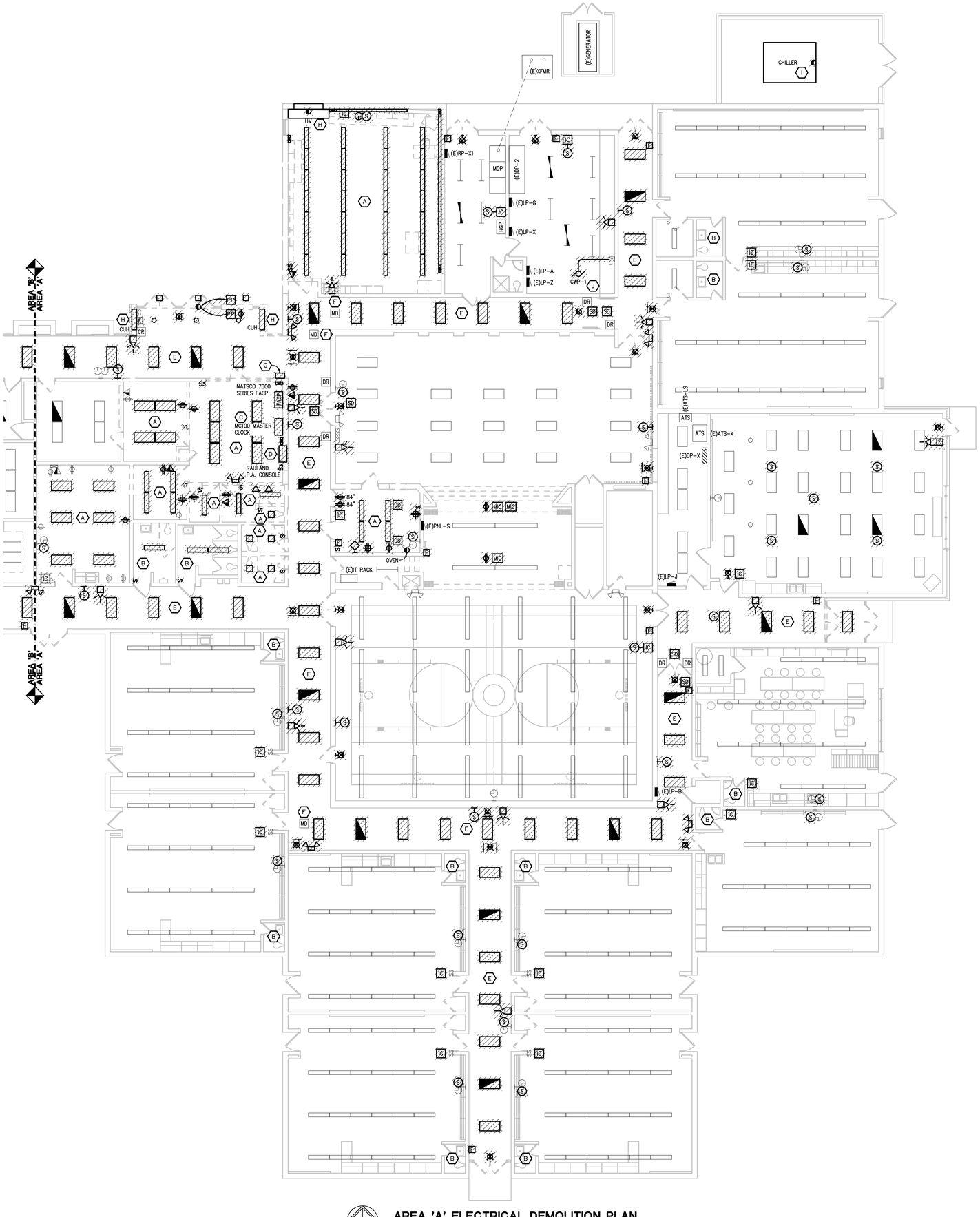


AREA 'A' ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1' - 0"

GENERAL NOTES:

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES AND BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES, WHETHER OR NOT SPECIFICALLY INDICATED.
3. REMOVE LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON PLAN WITH CROSS HATCHING. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO, THOSE DEVICES SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE DIAGRAMS AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. PROVIDE PROPER SUPPORT FOR EXISTING TO REMAIN CONDUITS AND BOXES WHERE EXISTING SUPPORT IS TO BE REMOVED. RE-ROUTE BRANCH CIRCUIT CONDUITS AND RELOCATE JUNCTION BOXES AS REQUIRED TO FACILITATE INSTALLATION OF NEW EQUIPMENT AND SYSTEMS IN CEILING SPACES.
6. REMOVE ALL CONDUIT AND WIRE BACK TO THE SOURCE OR NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
7. MAINTAIN ELECTRICAL SERVICE TO ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT THAT ARE TO REMAIN. EXTEND CONDUIT AND WIRE AS REQUIRED WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM LOADS THAT ARE TO REMAIN.
8. DISPOSE OF ALL MATERIALS OFF SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PROPER DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
9. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED BUT EXISTING WALLS REMAIN INTACT.
10. RING OUT AND TAG ALL CIRCUITS AFFECTED BY THIS ALTERATION AT BOTH ENDS. MARK ALL UNUSED CIRCUIT BREAKERS "SPARE".
11. PROVIDE UPDATED TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
12. VERIFY ALL UNDERGROUND AND IN SLAB UTILITY LOCATIONS PRIOR TO SAW-CUTTING OR PENETRATING ANY FLOOR SLAB.
13. COORDINATE ANY SHUT DOWN OF EXISTING SERVICES AND EQUIPMENT THAT ARE REMAINING IN USE WITH THE OWNER'S REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COSTS TO PERFORM THIS WORK DURING WEEKENDS AND EVENINGS INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWNS MUST OCCUR FOR PERIODS LONGER THAN THESE HOURS. COORDINATE ELECTRICAL SHUT DOWNS WITH THE OWNER 72 HOURS PRIOR TO SHUT DOWN.

DEMOLITION NOTES:

A. REMOVE WALL MOUNTED ELECTRICAL DEVICES (RECEPTACLES, RACEWAYS, FIRE ALARM, ETC.) COMPLETE UNLESS INDICATED AS EXISTING TO REMAIN. REMOVE BRANCH CIRCUITS AND CABLING AS REQUIRED BACK TO SOURCE. REMOVE CEILING MOUNTED LIGHTING AND CONTROLS COMPLETE. EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE TO REMAIN FOR REUSE.

B. REMOVE LIGHT FIXTURE(S), SWITCH, AND COMPLETE. EXISTING LIGHTING BRANCH CIRCUIT TO REMAIN FOR REUSE.

C. NATIONAL TIME AND SIGNAL MC100 MASTER CLOCK TO BE RELOCATED. REMOVE, PROTECT, AND STORE FOR REINSTALLATION. EXISTING CLOCK CIRCUITS TO REMAIN TO BE EXTENDED TO NEW LOCATION. REFER TO E3 SERIES DRAWINGS FOR NEW MASTER CLOCK LOCATION.

D. REMOVE EXISTING P.A. SYSTEM COMPLETE. THIS INCLUDES CALL SWITCHES, SPEAKERS, AND WIRING BACK TO SOURCE.

E. REMOVE LIGHT FIXTURES COMPLETE. EXISTING BRANCH CIRCUIT AND CONTROLS TO REMAIN. FIELD VERIFY LOCATION OF EXISTING CONTROLS.

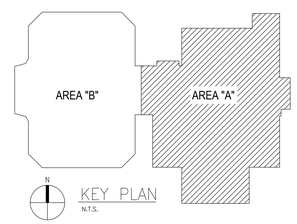
F. REMOVE CEILING MOUNTED DEVICE TO ALLOW FOR INSTALLATION OF NEW CEILING TILES AND GRID. EXISTING CABLING/BRANCH CIRCUIT TO REMAIN. REINSTALL DEVICE ONCE INSTALLATION OF NEW CEILING SYSTEM IS COMPLETE. COORDINATE WORK WITH CEILING INSTALLATION CONTRACTOR.

G. DEFIBRILLATOR CHARGING STATION TO BE RELOCATED. REMOVE, PROTECT, AND STORE FOR REUSE. EXISTING BRANCH CIRCUIT TO REMAIN.

H. MECHANICAL EQUIPMENT TO BE REMOVED. DISCONNECT AND REMOVE BRANCH CIRCUIT/FEEDER (CONDUIT AND WIRE) BACK TO SOURCE. REMOVE ASSOCIATED STARTER AND/OR DISCONNECT SWITCH AS REQUIRED.

I. CHILLER TO BE REMOVED. DISCONNECT FEEDER SERVING CONTROL PANEL AND BRANCH CIRCUIT SERVING RECEPTACLE. BOTH FEEDER AND BRANCH CIRCUIT SHALL REMAIN FOR REUSE. REFER TO ONE LINE DIAGRAMS ON E5 SERIES DRAWINGS.

J. CHILLER PUMP TO BE REMOVED. DISCONNECT FEEDER AND REMOVE BACK TO EXISTING STARTER. EXISTING STARTER TO REMAIN FOR REUSE.



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AREA A: ELECTRICAL DEMOLITION PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

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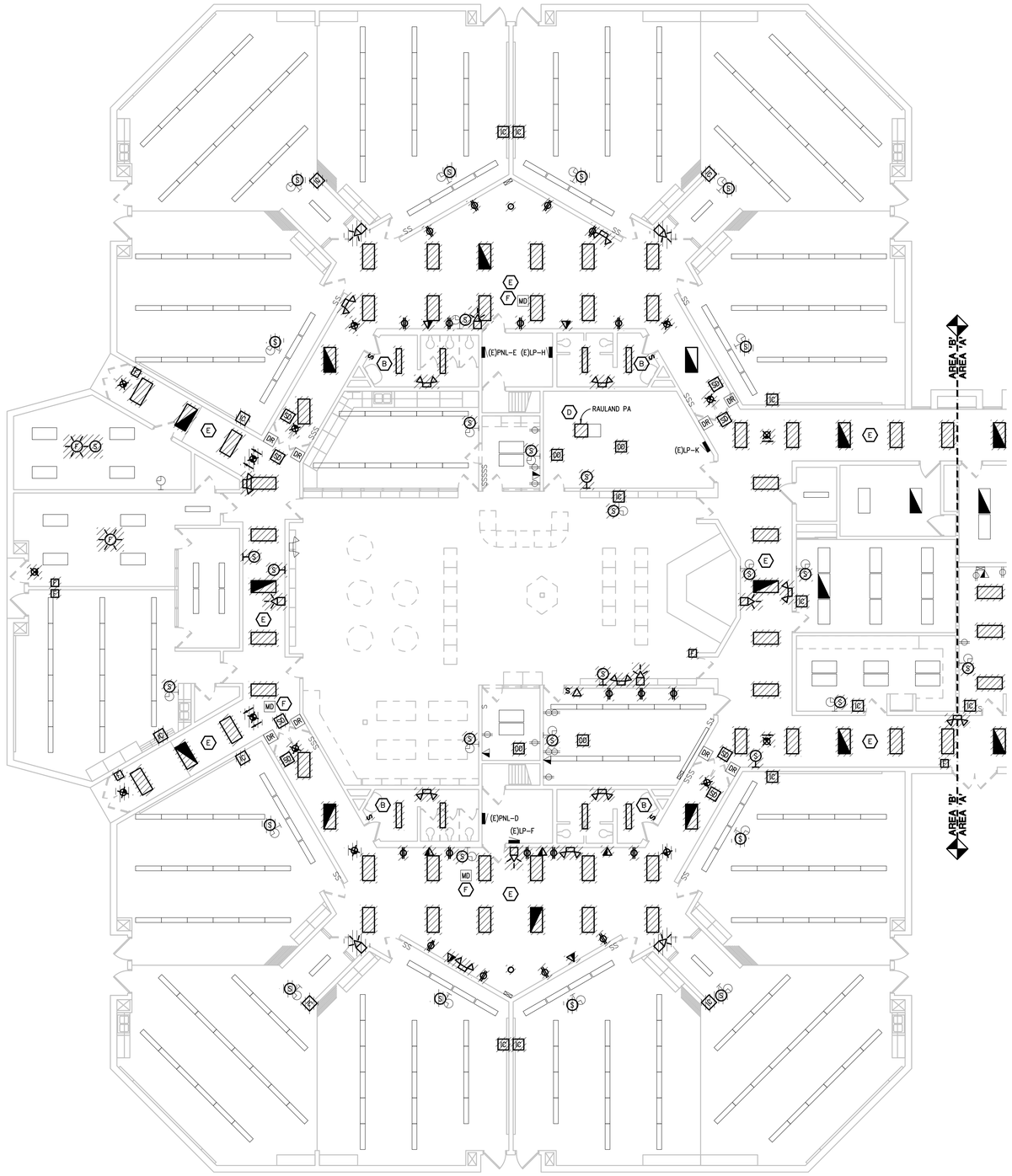


AREA 'B' ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1' - 0"

GENERAL NOTES:

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES AND BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES, WHETHER OR NOT SPECIFICALLY INDICATED.
3. REMOVE LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON PLAN WITH CROSS HATCHING. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO, THOSE DEVICES SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE DIAGRAMS AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. PROVIDE PROPER SUPPORT FOR EXISTING TO REMAIN CONDUITS AND BOXES WHERE EXISTING SUPPORT IS TO BE REMOVED. RE-ROUTE BRANCH CIRCUIT CONDUITS AND RELOCATE JUNCTION BOXES AS REQUIRED TO FACILITATE INSTALLATION OF NEW EQUIPMENT AND SYSTEMS IN CEILING SPACES.
6. REMOVE ALL CONDUIT AND WIRE BACK TO THE SOURCE OR NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
7. MAINTAIN ELECTRICAL SERVICE TO ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT THAT ARE TO REMAIN. EXTEND CONDUIT AND WIRE AS REQUIRED WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM LOADS THAT ARE TO REMAIN.
8. DISPOSE OF ALL MATERIALS OFF SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PROPER DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
9. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED BUT EXISTING WALLS REMAIN INTACT.
10. RING OUT AND TAG ALL CIRCUITS AFFECTED BY THIS ALTERATION AT BOTH ENDS. MARK ALL UNUSED CIRCUIT BREAKERS "SPARE".
11. PROVIDE UPDATED TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
12. VERIFY ALL UNDERGROUND AND IN SLAB UTILITY LOCATIONS PRIOR TO SAW-CUTTING OR PENETRATING ANY FLOOR SLAB.
13. COORDINATE ANY SHUT DOWN OF EXISTING SERVICES AND EQUIPMENT THAT ARE REMAINING IN USE WITH THE OWNER'S REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COSTS TO PERFORM THIS WORK DURING WEEKENDS AND EVENINGS INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWNS MUST OCCUR FOR PERIODS LONGER THAN THESE HOURS. COORDINATE ELECTRICAL SHUT DOWNS WITH THE OWNER 72 HOURS PRIOR TO SHUT DOWN.

(#) DEMOLITION NOTES:

A. REMOVE WALL MOUNTED ELECTRICAL DEVICES (RECEPTACLES, RACEWAYS, FIRE ALARM, ETC.) COMPLETE UNLESS INDICATED AS EXISTING TO REMAIN. REMOVE BRANCH CIRCUITS AND CABLING AS REQUIRED BACK TO SOURCE. REMOVE CEILING MOUNTED LIGHTING AND CONTROLS COMPLETE. EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE TO REMAIN FOR REUSE.

B. REMOVE LIGHT FIXTURE(S), SWITCH, AND COMPLETE. EXISTING LIGHTING BRANCH CIRCUIT TO REMAIN FOR REUSE.

C. NATIONAL TIME AND SIGNAL MC100 MASTER CLOCK TO BE RELOCATED. REMOVE, PROTECT, AND STORE FOR REINSTALLATION. EXISTING CLOCK CIRCUITS TO REMAIN TO BE EXTENDED TO NEW LOCATION. REFER TO E3 SERIES DRAWINGS FOR NEW MASTER CLOCK LOCATION.

D. REMOVE EXISTING P.A. SYSTEM COMPLETE. THIS INCLUDES CALL SWITCHES, SPEAKERS, AND WIRING BACK TO SOURCE.

E. REMOVE LIGHT FIXTURES COMPLETE. EXISTING BRANCH CIRCUIT AND CONTROLS TO REMAIN. FIELD VERIFY LOCATION OF EXISTING CONTROLS.

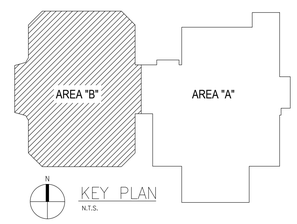
F. REMOVE CEILING MOUNTED DEVICE TO ALLOW FOR INSTALLATION OF NEW CEILING TILES AND GRID. EXISTING CABLING/BRANCH CIRCUIT TO REMAIN. REINSTALL DEVICE ONCE INSTALLATION OF NEW CEILING SYSTEM IS COMPLETE. COORDINATE WORK WITH CEILING INSTALLATION CONTRACTOR.

G. DEFIBRILLATOR CHARGING STATION TO BE RELOCATED. REMOVE, PROTECT, AND STORE FOR REUSE. EXISTING BRANCH CIRCUIT TO REMAIN.

H. MECHANICAL EQUIPMENT TO BE REMOVED. DISCONNECT AND REMOVE BRANCH CIRCUIT/FEEDER (CONDUIT AND WIRE) BACK TO SOURCE. REMOVE ASSOCIATED STARTER AND/OR DISCONNECT SWITCH AS REQUIRED.

I. CHILLER TO BE REMOVED. DISCONNECT FEEDER SERVING CONTROL PANEL AND BRANCH CIRCUIT SERVING RECEPTACLE. BOTH FEEDER AND BRANCH CIRCUIT SHALL REMAIN FOR REUSE. REFER TO ONE LINE DIAGRAMS ON E5 SERIES DRAWINGS.

J. CHILLER PUMP TO BE REMOVED. DISCONNECT FEEDER AND REMOVE BACK TO EXISTING STARTER. EXISTING STARTER TO REMAIN FOR REUSE.



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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

AREA B: ELECTRICAL DEMOLITION PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
ED1.1BWC

JOB NO. 161664A

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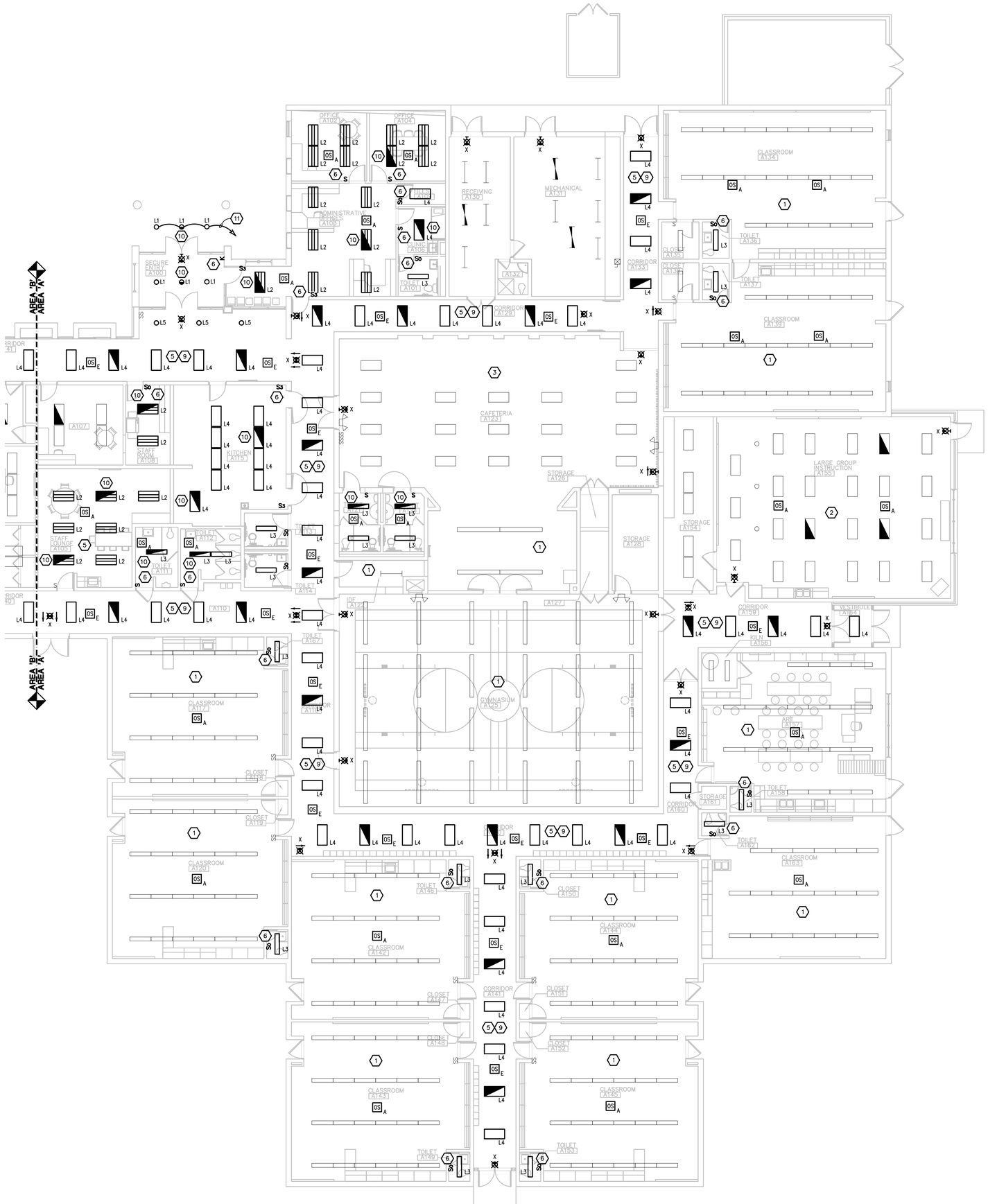
THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE. 1"



AREA 'A' LIGHTING NEW WORK PLAN

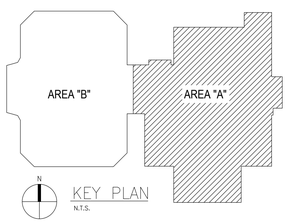
SCALE: 1/8" = 1' - 0"

GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
9. PROVIDE THE DESIGN AND INSTALLATION FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON-SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS.
10. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF NEAREST AVAILABLE EMERGENCY LIGHTING BRANCH CIRCUIT.

CONSTRUCTION KEY NOTES:

1. REMOVE EXISTING LAMPS AND BALLAST FOR LIGHT FIXTURES IN ROOM. PROVIDE (2) PHILIPS INSTANTFIT LED T8 LAMPS AND (1) T8 LED DRIVER. LAMPS SHALL BE 4000K COLOR TEMP.
2. REMOVE EXISTING LAMPS AND BALLASTS FOR LIGHT FIXTURES IN ROOM. PROVIDE (3) PHILIPS INSTANTFIT LED T8 LAMPS AND (2) T8 LED DRIVERS FOR INNER/OUTER LAMP SWITCHING. LAMPS SHALL BE 4000K COLOR TEMP.
3. REMOVE EXISTING LAMPS AND BALLASTS FOR LIGHT FIXTURES IN ROOM. PROVIDE (4) PHILIPS INSTANTFIT LED T8 LAMPS AND (2) T8 LED DRIVERS FOR INNER/OUTER LAMP SWITCHING. REFER TO SPECIFICATIONS FOR BALLAST REQUIREMENTS. LAMPS SHALL BE 4000K COLOR TEMP.
4. CIRCUIT NEW OCCUPANCY SENSOR TO EXISTING LIGHTING AND SWITCHES. REFER TO OCCUPANCY SENSOR WIRING DIAGRAM ON E7 SERIES DRAWINGS. VERIFY SWITCH LOCATIONS IN FIELD. EXTEND CONDUIT AND WIRE AS REQUIRED. REFER TO OCCUPANCY SENSOR WIRING DIAGRAM ON E7 SERIES DRAWINGS.
5. CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW OCCUPANCY SENSORS AND EXISTING WALL SWITCHES. VERIFY EXISTING SWITCH LOCATIONS IN FIELD. EXTEND CONDUIT AND WIRE AS REQUIRED.
6. CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW OCCUPANCY SENSORS AND WALL SWITCHES AS INDICATED. EXTEND CONDUIT AND WIRE AS REQUIRED.
7. CIRCUIT LIGHT FIXTURES TO EXISTING MEDIA CENTER LIGHT FIXTURES AND CONTROLS. EXTEND CONDUIT AND WIRE AS REQUIRED.
8. CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING BRANCH CIRCUIT SERVING SPACE VIA NEW OCCUPANCY SENSORS AND WALL SWITCHES AS INDICATED. EXTEND CONDUIT AND WIRE AS REQUIRED. PROVIDE NEW 0-10V CABLING FOR DIMMING SWITCH AS INDICATED.
9. REWORK EXISTING EMERGENCY LIGHTING BRANCH CIRCUIT SERVING SPACE AS REQUIRED FOR NEW EMERGENCY LIGHTING LAYOUT. PROVIDE NEW EMERGENCY LOAD TRANSFER DEVICE (1 PER SWITCHING CIRCUIT) FOR FIXTURES INDICATED AS EMERGENCY. EXTEND CONDUIT AND WIRE AS REQUIRED. EMERGENCY LIGHTING BRANCH CIRCUITS ARE FROM PANEL LP-X LOCATED IN BOILER ROOM. REFER TO EMERGENCY LOAD TRANSFER DEVICE WIRING DIAGRAM ON E7 SERIES DRAWINGS.
10. CIRCUIT EMERGENCY LIGHT FIXTURE TO EMERGENCY LIGHTING BRANCH CIRCUIT SERVING CORRIDOR. PROVIDE NEW EMERGENCY LOAD TRANSFER DEVICE (1) PER SWITCHING CIRCUIT. REFER TO EMERGENCY LOAD TRANSFER DEVICE WIRING DIAGRAM ON E7 SERIES DRAWINGS.
11. CIRCUIT FIXTURES TO NEAREST EXISTING SITE LIGHTING BRANCH CIRCUIT AND CONTROLS.



KEY PLAN
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PBA Project No.: 7015.014.07

FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

AREA 'A' LIGHTING NEW WORK PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016
ADDENDUM NO. 1 12 : 2016

DATE: NOVEMBER 30, 2016

SHEET NO.:
E2.1AWC

JOB NO. 161664A

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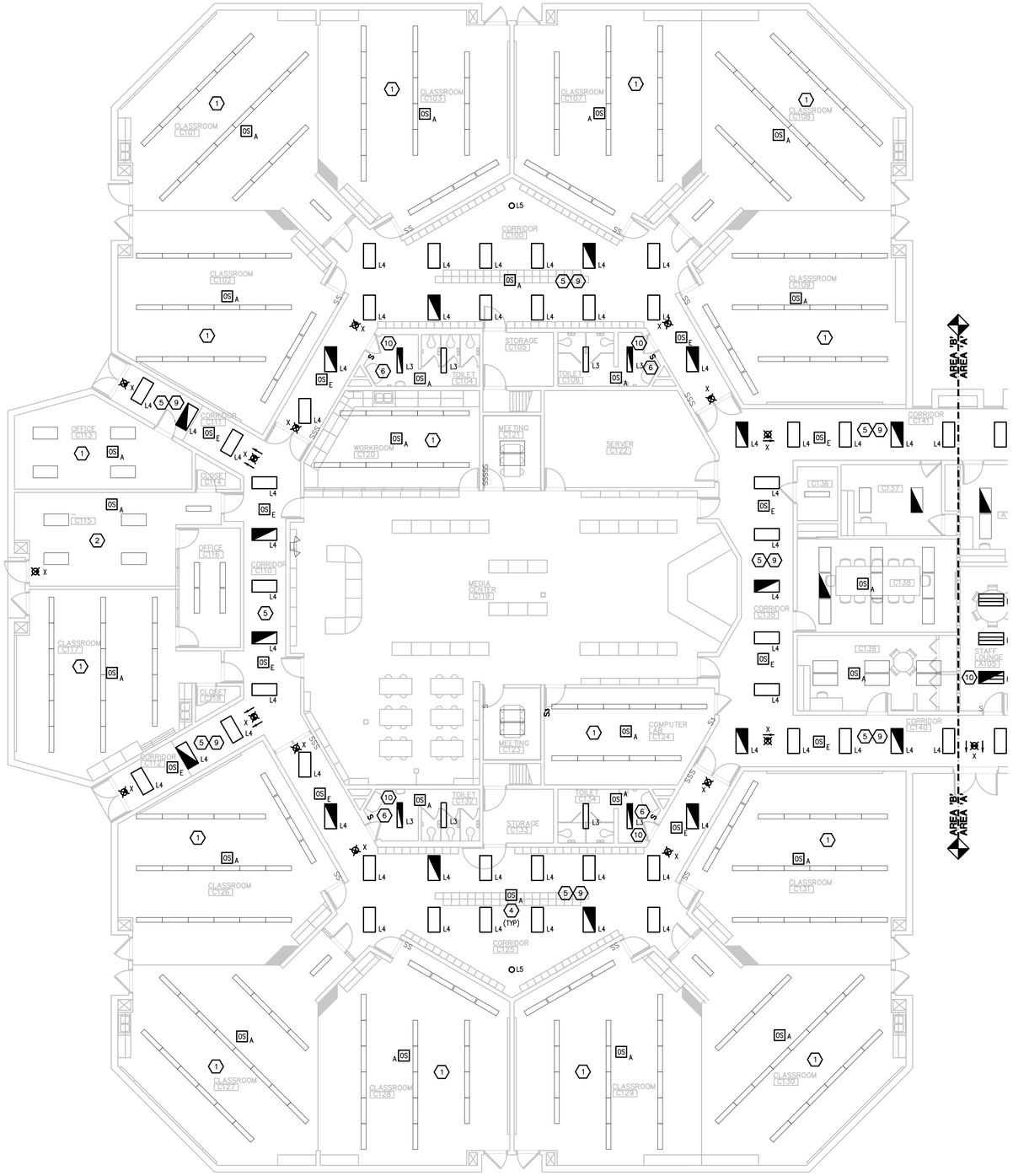

AREA 'B' LIGHTING NEW WORK PLAN

SCALE: 1/8" = 1' - 0"

GENERAL NOTES:

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3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
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CONSTRUCTION KEY NOTES:

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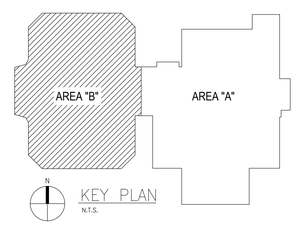
11. CIRCUIT FIXTURES TO NEAREST EXISTING SITE LIGHTING BRANCH CIRCUIT AND CONTROLS.



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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
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AREA B: LIGHTING NEW WORK PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
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FINAL RECORD ☐

DRAWN BY: BAG
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REVISIONS:
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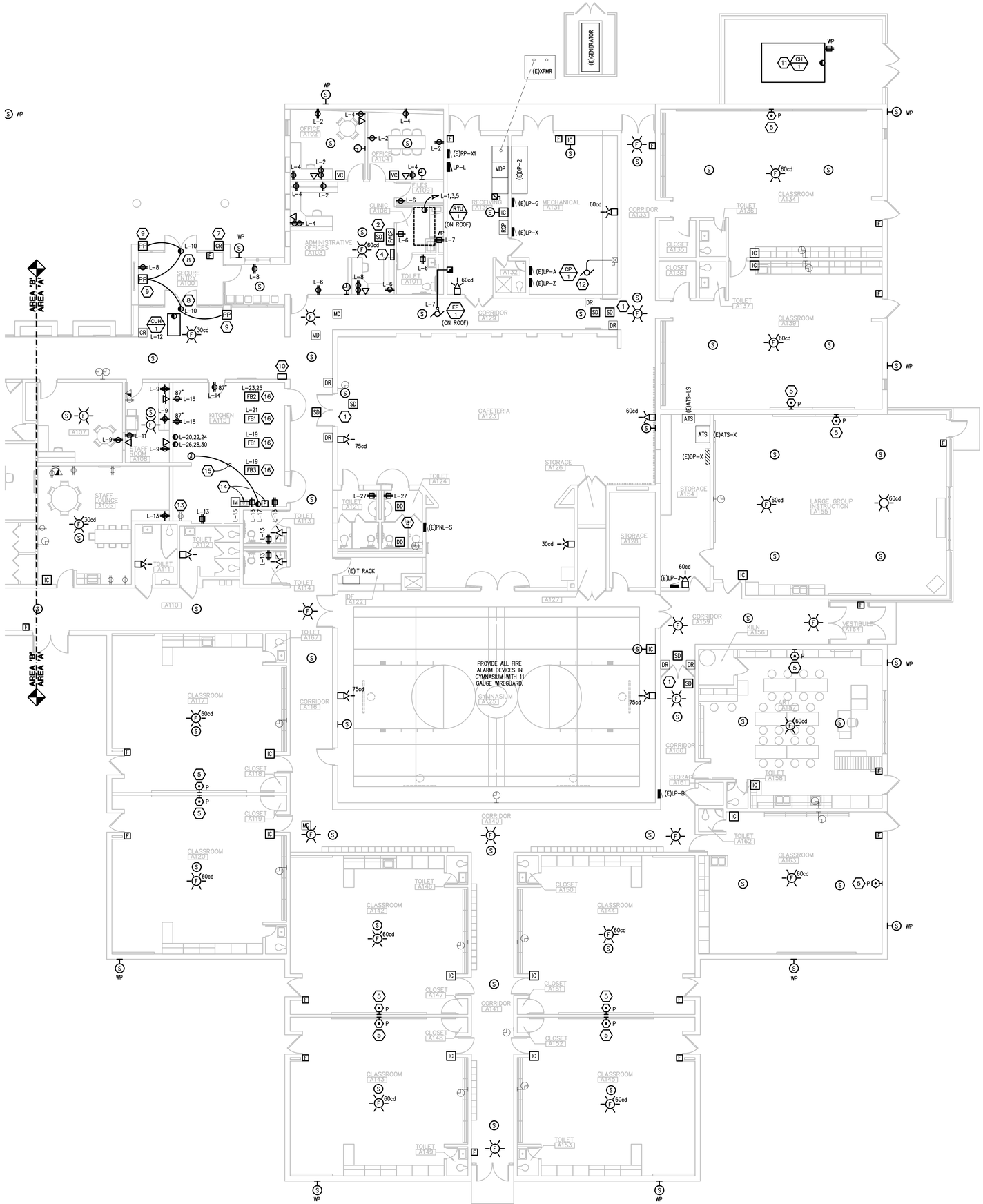

AREA 'A' POWER NEW WORK PLAN

SCALE: 1/8" = 1' - 0"

GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
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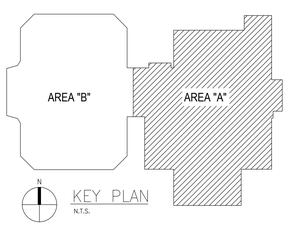
3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
9. PROVIDE THE DESIGN AND INSTALLATION FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON-SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS.
10. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF NEAREST AVAILABLE EMERGENCY LIGHTING BRANCH CIRCUIT.

CONSTRUCTION KEY NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE ALARM CONTROL MODULE AND SMOKE DETECTORS FOR DOOR RELEASE. COORDINATE MOUNTING WITH DOOR CONTRACTOR. ALL RELATED DOOR HARDWARE IS PROVIDED BY OTHERS. WIRE TO FIRE ALARM PANEL SO THAT UPON DETECTION OF SMOKE AT ASSOCIATED DOOR SMOKE DETECTORS, DOOR WILL RELEASE AND FIRE ALARM SYSTEM WILL BE ACTIVATED. ELECTRICAL SHALL PROVIDE 120V POWER (FROM DEDICATED CIRCUIT) OR 24V POWER (FROM NEAREST FIRE ALARM SYSTEM) AS REQUIRED. PROVIDE (2) 4" CONDUITS STUBBED THROUGH SMOKE PARTITION, EXTENDING 4" FROM FROM EACH SIDE OF THE PARTITION. PROVIDE REMOVABLE/RESEAL ABLE FIRE STOPPING FOR EACH CONDUIT.
2. FIRE ALARM CONTROL PANEL: PROVIDE 3/4"C. WITH 2 DEDICATED LINES TO HEAD END ROOM FOR MODEM DIALER IN FIRE ALARM CONTROL PANEL. ELECTRICAL CONTRACTOR SHALL PROVIDE THE TELEPHONE CABLING (CAT 5) AND TERMINATIONS AT THE TELEPHONE EQUIPMENT AND FIRE ALARM CONTROL PANEL. THE ELECTRICAL CONTRACTOR SHALL SUB-CONTRACT THIS WORK TO THE ON SITE TELEPHONE/DATA CONTRACTOR.
3. DUCT SMOKE DETECTORS, COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH THE EXISTING DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BASED ON THE EXISTING DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE EXISTING MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC FOR A COMPLETE OPERATING SYSTEM.
4. RELOCATED MASTER CLOCK. EXTEND EXISTING CLOCK CIRCUITS TO NEW LOCATION. PROVIDE NEW BRANCH CIRCUIT AS INDICATED FOR SYSTEM POWER.
5. REFER TO SHORT THROW PROJECTOR MOUNTING DETAILS ON E7 SERIES DRAWINGS FOR POWER AND DATA REQUIREMENTS AT NEW PROJECTOR LOCATION. COORDINATE EXACT LOCATION WITH TECHNOLOGY CONTRACTOR AND ARCHITECTURAL TRADES. CIRCUIT PROJECTOR TO BRANCH CIRCUIT IN ROOM THAT PREVIOUSLY SERVED TELEVISION UNLESS INDICATED OTHERWISE.
6. REFER TO TEACHER STATION DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA REQUIREMENTS AT TEACHER STATION LOCATION. COORDINATE EXACT LOCATION WITH TECHNOLOGY CONTRACTOR AND ARCHITECTURAL TRADES. CIRCUIT RECEPTACLES AS INDICATED.
7. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C. TO ABOVE ACCESSIBLE CEILING FOR CARD READER. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
8. PROVIDE BRANCH CIRCUIT AS INDICATED FOR DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT REQUIREMENTS WITH DOOR HARDWARE CONTRACTOR. ELECTRICAL CONTRACTOR TO MAKE FINAL CONNECTIONS.
9. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C. TO ABOVE ACCESSIBLE CEILING FOR DOOR OPERATOR PUSHPAD. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
10. RELOCATED DEFIBRILLATOR CHARGING STATION. CIRCUIT TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
11. CIRCUIT NEW CHILLER CONTROL PANEL TO EXISTING FEEDER. CIRCUIT SERVICE RECEPTACLE TO EXISTING 120V BRANCH CIRCUIT. EXTEND CONDUITS AND WIRE AS REQUIRED. REFER TO ONE LINE DIAGRAMS ON E5 SERIES DRAWINGS.
12. CIRCUIT NEW CHILLER PUMP TO EXISTING STARTER AS INDICATED. PROVIDE NEW THERMAL OVERLOAD PROTECTION AT EXISTING STARTER AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH NEW MOTOR MANUFACTURER.
13. REMOVE EXISTING RECEPTACLE AND COVERPLATE AND PROVIDE NEW GFCI RECEPTACLE AND COVERPLATE. CIRCUIT TO EXISTING BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS REQUIRED.
14. KITCHEN FIRE SUPPRESSION SYSTEM AND MANUAL PULL STATION SUPPLIED BY KITCHEN EQUIPMENT SUPPLY CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. REFER TO E7 SERIES DRAWINGS FOR WIRING DIAGRAMS AND DETAILS. PROVIDE INTERACE MODULES, COMMAND MODULES, ETC. AS REQUIRED TO TIE INTO BUILDING FIRE ALARM SYSTEM. CIRCUIT TO BRANCH CIRCUIT AS INDICATED.
15. HOOD LIGHT AND FAN CONTROLS SUPPLIED BY KITCHEN EQUIPMENT SUPPLY CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE WIRING FROM CONTROLLER TO JUNCTION BOX ON TOP OF HOOD. COORDINATE EXACT REQUIREMENTS WITH HOOD MANUFACTURER. CIRCUIT AS INDICATED.
16. SAW CUT EXISTING CONCRETE FLOOR AS REQUIRED FOR NEW FLOOR BOX AND CONDUIT(S). PROVIDE 3/4" CONDUIT FOR POWER AND 3/4" CONDUIT WITH NYLON PULLSTRING FOR DATA AS REQUIRED. CONDUITS SHALL BE ROUTED UP INSIDE OF NEAREST NEW WALL TO ABOVE ACCESSIBLE CEILING. PATCH FLOOR WITH CONCRETE



KEY PLAN
N.T.S.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

AREA A: POWER NEW WORK PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016
SHEET NO.:
E3.1AWC
JOB NO. 161664A

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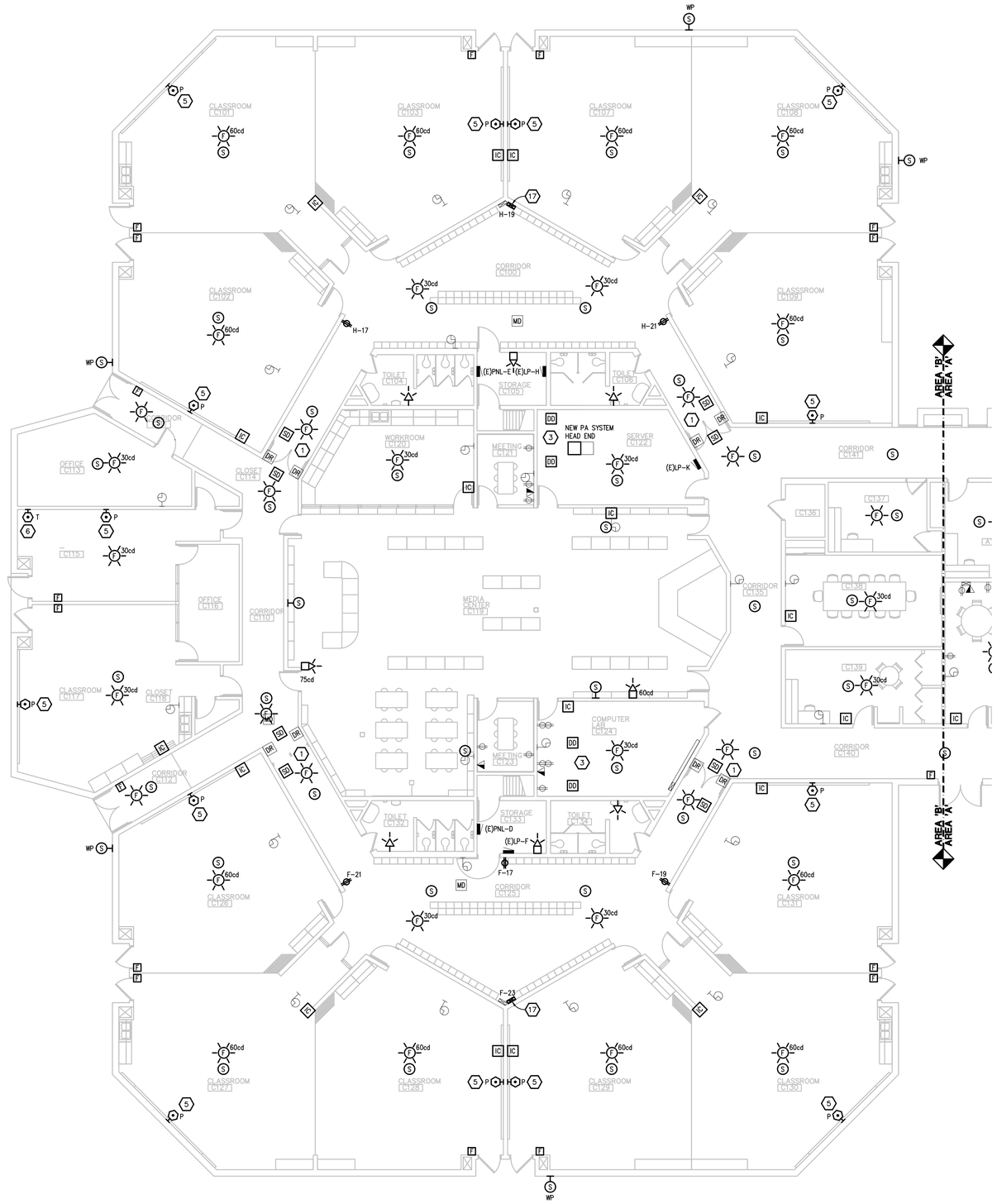
THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE. 1"



AREA 'B' POWER NEW WORK PLAN

SCALE: 1/8" = 1' - 0"

GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
5. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
6. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
7. COORDINATE EXACT LOCATIONS OF ALL FLOOR BOXES WITH FINAL FURNITURE LAYOUT DRAWINGS.
8. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
9. PROVIDE THE DESIGN AND INSTALLATION FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON-SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS.
10. CIRCUIT EXIT LIGHT FIXTURES UNSWITCHED TO HOT LEG OF NEAREST AVAILABLE EMERGENCY LIGHTING BRANCH CIRCUIT.

CONSTRUCTION KEY NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE ALARM CONTROL MODULE AND SMOKE DETECTORS FOR DOOR RELEASE. COORDINATE MOUNTING WITH DOOR CONTRACTOR. ALL RELATED DOOR HARDWARE IS PROVIDED BY OTHERS. WIRE TO FIRE ALARM PANEL SO THAT UPON DETECTION OF SMOKE AT ASSOCIATED DOOR SMOKE DETECTORS, DOOR WILL RELEASE AND FIRE ALARM SYSTEM WILL BE ACTIVATED. ELECTRICAL SHALL PROVIDE 120V POWER (FROM DEDICATED CIRCUIT) OR 24V POWER (FROM NEAREST FIRE ALARM SYSTEM) AS REQUIRED. PROVIDE (2) 4" CONDUITS STUBBED THROUGH SMOKE PARTITION, EXTENDING 4" FROM FROM EACH SIDE OF THE PARTITION. PROVIDE REMOVABLE/RESEAL ABLE FIRE STOPPING FOR EACH CONDUIT.
2. FIRE ALARM CONTROL PANEL: PROVIDE 3/4"C. WITH 2 DEDICATED LINES TO HEAD END ROOM FOR MODEM DIALER IN FIRE ALARM CONTROL PANEL. ELECTRICAL CONTRACTOR SHALL PROVIDE THE TELEPHONE CABLING (CAT 5) AND TERMINATIONS AT THE TELEPHONE EQUIPMENT AND FIRE ALARM CONTROL PANEL. THE ELECTRICAL CONTRACTOR SHALL SUB-CONTRACT THIS WORK TO THE ON SITE TELEPHONE/DATA CONTRACTOR.
3. DUCT SMOKE DETECTORS, COORDINATE REQUIRED QUANTITIES AND MOUNTING LOCATIONS WITH THE EXISTING DUCT WORK TO MEET CODE. (PROVIDE 4 DUCT SMOKE DETECTORS PER AHU/RTU/AC FOR BID PURPOSES. QUANTITIES WILL BE ADJUSTED IN FIELD BASED ON THE EXISTING DUCT WORK PENETRATIONS AND ROUTING LOCATIONS). COORDINATE INSTALLATION WITH THE EXISTING MECHANICAL DUCT WORK SO THAT UPON DETECTION OF SMOKE, THE SUPPLY/RETURN FAN WILL SHUT DOWN. CONTRACTOR SHALL WIRE DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM. CONTROL OF AIR HANDLING EQUIPMENT IS VIA THE FIRE ALARM CONTROL PANEL. PROVIDE ALL REQUIRED FIRE ALARM CONTROL MODULES AND RELAYS TO INTERFACE WITH SUPPLY FAN AND ASSOCIATED RETURN FAN (OR EXHAUST FAN). PROVIDE ALL CONTROL MODULES, RELAYS, ETC FOR A COMPLETE OPERATING SYSTEM.
4. RELOCATED MASTER CLOCK. EXTEND EXISTING CLOCK CIRCUITS TO NEW LOCATION. PROVIDE NEW BRANCH CIRCUIT AS INDICATED FOR SYSTEM POWER.
5. REFER TO SHORT THROW PROJECTOR MOUNTING DETAILS ON E7 SERIES DRAWINGS FOR POWER AND DATA REQUIREMENTS AT NEW PROJECTOR LOCATION. COORDINATE EXACT LOCATION WITH TECHNOLOGY CONTRACTOR AND ARCHITECTURAL TRADES. CIRCUIT PROJECTOR TO BRANCH CIRCUIT IN ROOM THAT PREVIOUSLY SERVED TELEVISION UNLESS INDICATED OTHERWISE.
6. REFER TO TEACHER STATION DETAIL ON E7 SERIES DRAWINGS FOR POWER AND DATA REQUIREMENTS AT TEACHER STATION LOCATION. COORDINATE EXACT LOCATION WITH TECHNOLOGY CONTRACTOR AND ARCHITECTURAL TRADES. CIRCUIT RECEPTACLES AS INDICATED.
7. PROVIDE 2-GANG JUNCTION BOX WITH 3/4"C. TO ABOVE ACCESSIBLE CEILING FOR CARD READER. PROVIDE CONDUIT WITH NYLON PULLSTRING. PROVIDE BLANK COVERPLATE AT JUNCTION BOX. COORDINATE EXACT LOCATION WITH ARCHITECTURAL TRADES.
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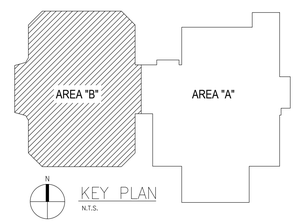

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
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WOODCREEK ELEMENTARY SCHOOL

AREA B POWER NEW WORK PLAN

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

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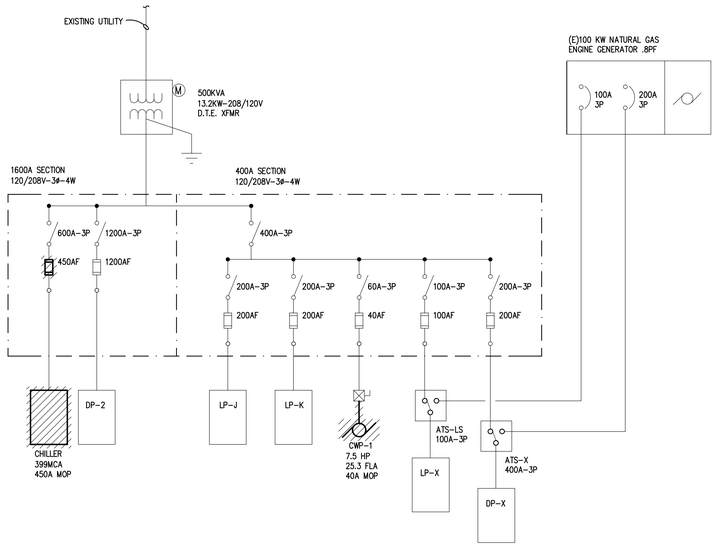
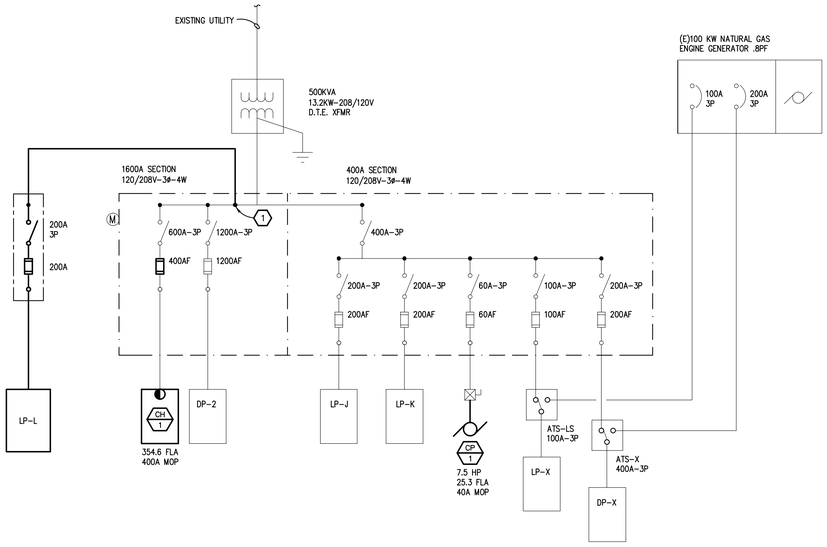


PARTIAL ONE LINE DIAGRAM - DEMOLITION

NO SCALE



MDP LOAD CALCULATION SCHEDULE:

PEAK METERED LOAD:	231.0 KVA
METERED LOAD X 125%:	288.8 KVA
ADDED LOAD:	33.1 KVA
NEW TOTAL LOAD:	321.9 KVA

321.9 KVA = 894.6 AMPS @ 208V

PARTIAL ONE LINE DIAGRAM - DEMOLITION

NO SCALE

GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.
2. FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE-GENERAL PURPOSE" ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
3. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "TRANSFORMER CIRCUIT SIZING SCHEDULE-GENERAL PURPOSE" ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
4. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH THE MOTOR CIRCUIT SIZING SCHEDULES ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
5. BASIS OF DESIGN IS SQUARE D DISTRIBUTION EQUIPMENT AND ASCO TRANSFER SWITCHES. IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT FROM OTHER APPROVED MANUFACTURERS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE LAYOUT AND CLEARANCE REQUIREMENTS IN ALL SPACES CONTAINING ELECTRICAL EQUIPMENT AND PROVIDE EQUIPMENT MEETING THE SPECIFICATIONS AND ACHIEVING CODE REQUIRED CLEARANCES WITHIN THE SPACE PROVIDED.
6. SELECTIVE COORDINATION (PER NEC ARTICLES 517.30, 700.28 AND 701.27) IS BASED ON SQUARE D DISTRIBUTION EQUIPMENT AND ASCO TRANSFER SWITCHES. ELECTRICAL CONTRACTOR SHALL SUBMIT SELECTIVE COORDINATION STUDY WITH TIME CURRENT CHARACTERISTIC CURVES (AND TABLES FOR TESTED PAIR INSTANTANEOUS COORDINATION) FOR THE EMERGENCY SYSTEMS. ELECTRICAL CONTRACTORS SHALL RECEIVE APPROVED SHOP DRAWINGS BACK FROM ENGINEER OF RECORD PRIOR TO PURCHASING OR INSTALLING ANY ELECTRICAL DISTRIBUTION EQUIPMENT. BREAKERS MUST BE COORDINATED WITH AUTOMATIC TRANSFER SWITCHES 3-CYCLE WITHSTAND RATING. ALTERNATE MANUFACTURERS SHALL MEET SELECTIVE COORDINATION CRITERIA AT NO ADDITIONAL COST TO THE PROJECT.
7. BRANCH CIRCUIT CONDUCTORS, FEEDERS, AND BRANCH CIRCUIT OVERCURRENT PROTECTION ARE SIZED AT 125% OF THE TOTAL CONTINUOUS AND NON CONTINUOUS LOAD FOR LIGHTING AND MOTOR LOADS THAT RUN CONTINUOUSLY FOR THREE HOURS OR MORE (NEC 210.19 A, 210.20 A, AND 215.2 A). DEMAND AND CONNECTED LOADS ARE CALCULATED PER NEC 220.
8. VARIABLE FREQUENCY CONTROLLERS (VFC) PROVIDED BY MECHANICAL TRADES. ELECTRICAL CONTRACTOR SHALL INSTALL VFC, PROVIDE POWER FEEDER FROM DISTRIBUTION EQUIPMENT TO VFC AND PROVIDE POWER FEEDER FROM VFC TO MOTOR. REFER TO SPECIFICATIONS FOR APPLICATION OF VFC POWER CABLE FROM VFC TO MOTOR.

(#) CONSTRUCTION KEY NOTES:

1. THE TAP OF (E) MDP IS REQUIRED TO BE FIELD CERTIFIED, PER STATE OF MICHIGAN BUREAU OF CONSTRUCTION CODES. THE ELECTRICAL CONTRACTOR SHALL PROVIDE U.L. OR E.T.L. CERTIFICATION THROUGH A CERTIFIED TESTING FIRM AND COORDINATE ALL THE REQUIREMENTS FOR THE FIELD CERTIFICATION. AFTER CERTIFICATION HAS BEEN COMPLETED, FORWARD DOCUMENTATION STATING SO TO THE ARCHITECT/ENGINEER. INCLUDE ALL COSTS IN BID.

LP-L

#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#
1	MH				3825	4905			1080	20		RECEPT - A102, A103, A104	R	2
3	MH	RTU-1		40	3825		5085		1260	20		RECEPT - A102, A103, A104	R	4
5	MH				3825			4725	900	20		RECEPT - A101, A103, A106, A109	R	6
7	M	EF-1 AND ROOFTOP RECEPT		20	360	1080			720	20		RECEPT - A100, A103	R	8
9	R	RECEPT - A109		20	720		1720		1000	20		DOOR HARDWARE - A100	NC	10
11	R	COPIER RECEPT - A109		20	1200			1900	700	15		CUH-1	W	12
13	R	RECEPT - A106, A113, A114, A115		20	1080	1920			840	20		RECEPT - KITCHEN A115	K	14
15	C	AHU1, SYSTEM - KITCHEN A115		20	960		2088		1128	20		RECEPT - KITCHEN A115	K	16
17	K	HOOD - KITCHEN A115		20	1200			2568	1368	20		RECEPT - KITCHEN A115	K	18
19	K	FLOOR RECEPT - KITCHEN A115		20	1000	5300			4300				K	20
21	K	FLOOR RECEPT - KITCHEN A115		20	1440		5740		4300	50		OVEN - KITCHEN A115	K	22
23	K	FLOOR RECEPT - KITCHEN A115		30	2350			6650	4300				K	24
25	K				2350	6650			4300				K	26
27	R	RECEPT - A121, A124		20	360		4660		4300	50		OVEN - KITCHEN A115	K	28
29		SPARE		20				4300	4300				K	30
31		SPARE		20						20		SPARE		32
33		SPARE		20						20		SPARE		34
35		SPARE		20						20		SPARE		36
37		SPARE		20						20		SPARE		38
39		SPARE		20						20		SPARE		40
41		SPARE		20						20		SPARE		42
						19855	19293	20143						
						ØA	ØB	ØC						

PANELBOARD INFORMATION:

VOLTAGE:	208Y/120
BUS AMPACITY:	225A
MAIN TYPE:	MLO
MINIMUM A.I.C.:	22,000
MOUNTING:	SURFACE

PANELBOARD LOCATION:

BRANCH CIRCUIT CONNECTED LOAD:		FEEDER DEMAND LOAD:		OVERCURRENT LOAD:		NOTES:
CONTINUOUS LOAD (C):	960	X 125%	1200	X 100%	1200	
NON-CONTINUOUS LOAD (NC):	1000	X 100%	1000	X 100%	1000	
KITCHEN LOAD (K):	37476	X 65%	24359	X 100%	24359	
RECEPTACLE BASE LOAD (R):	7320	X 100%	7320	X 100%	7320	
RECEPTACLE DEMAND LOAD (R):		X 50%		X 100%		
LIGHTING LOAD (L):		X 100%		X 125%		
TRACK LIGHTING (T):		(150VA/2FT)		X 125%		
MOTORS, HIGHEST LOAD (MH):	11475	X 125%	14344	X 100%	14344	
MOTORS, REMAINING LOAD (M):	1060	X 100%	1060	X 100%	1060	
TOTAL(KVA):	59.29	TOTAL(KVA):	49.28	TOTAL(KVA):	49.28	
TOTAL (AMPS):	164.58	TOTAL (AMPS):	136.80	TOTAL (AMPS):	136.80	

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

ONE LINE DIAGRAMS

PRELIMINARY ☐
DESIGN DEVELOPMENT ☐
CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

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E5.1WC

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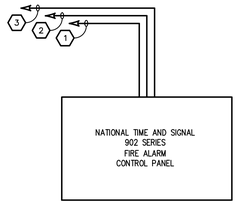


KEY NOTES:

1. ADDRESSABLE INITIATING DEVICE LOOP (SIGNALING LINE CIRCUIT), CLASS B, STYLE 4 WIRING. INCLUDES MANUAL PULL STATIONS, SMOKE DETECTORS, THERMAL DETECTORS, WATER FLOW SWITCHES, TAMPER SWITCHES, ETC. SEE PLAN DRAWINGS FOR DEVICE LOCATIONS AND QUANTITIES. PROVIDE WIRING AS SPECIFIED BY SYSTEM MANUFACTURER.
2. VISUAL NOTIFICATION APPLIANCE CIRCUIT, CLASS B, STYLE Y WIRING. SEE PLAN DRAWINGS FOR DEVICE LOCATION AND QUANTITIES. PROVIDE WIRING AND NUMBER OF CIRCUITS AS REQUIRED BY SYSTEM MANUFACTURER BASED ON MANUFACTURERS CIRCUIT LOAD CALCULATIONS.
3. AUDIBLE NOTIFICATION APPLIANCE CIRCUIT, CLASS B, STYLE Y WIRING. SEE PLAN DRAWINGS FOR FOR DEVICE LOCATION AND QUANTITIES.

FIRE ALARM RISER DIAGRAM

NO SCALE

NOTE:

1. COORDINATE ROOM NAMES AND/OR NUMBERS WITH OWNER PRIOR TO FINAL PROGRAMMING.
2. PROVIDE MANUFACTURER'S FIELD SERVICES FOR SUPERVISING FINAL WIRING CONNECTIONS, INSPECTION AND ADJUSTING OF COMPLETED INSTALLATION, AND SYSTEMS DEMONSTRATION.
3. PROVIDE 2 YEAR WARRANTY PARTS AND SERVICE.

SYSTEM OUTPUTS

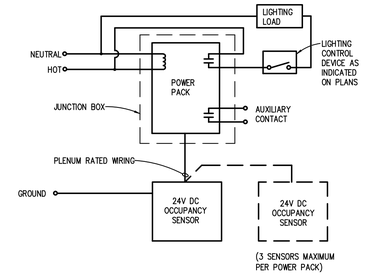
SYSTEM INPUTS	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE EVACUATION SIGNALS	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	DISPLAY CHANGE OF STATUS	ACTUATE ALARM SEQUENCE ON EXIST. FA CONTROL PNL	TRANSMIT FIRE ALARM SIGNAL TO SECURITY	TRANSMIT SUPERVISORY SIGNAL TO SECURITY	TRANSMIT TROUBLE SIGNAL TO SECURITY	RELEASE MAGNETICALLY HELD SMOKE DOORS
MANUAL FIRE ALARM BOXES	●	●					●	●	●			
SMOKE AND HEAT DETECTOR ACTIVATION	●	●					●	●	●			
DUCT DETECTOR ACTIVATION	●	●					●	●	●			
FLOW SWITCH ACTIVATION	●	●					●	●	●			●
TAMPER SWITCH ACTIVATION			●	●						●		
FIRE ALARM AC POWER FAILURE			●	●						●		
FIRE ALARM SYSTEM LOW BATTERY					●	●					●	
OPEN CIRCUIT					●	●					●	
GROUND FAULT					●	●					●	
NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●					●	

FIRE ALARM MATRIX

NO SCALE

NOTES:

1. PROVIDE ALL RELAYS, CONTROL MODULES AND MATERIAL AND LABOR REQUIRED TO SHUT DOWN AIR HANDLING UNITS. COORDINATE WORK WITH THE TEMPERATURE CONTROL CONTRACTOR.
2. FIRE ALARM VENDER SHALL CONFIRM THE ABOVE OPERATION MATRIX WITH THE AUTHORITIES HAVING JURISDICTION. REVISE AS REQUIRED.

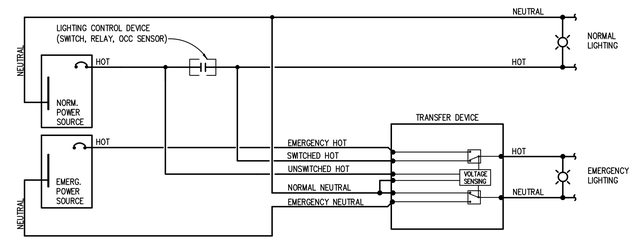


OCCUPANCY SENSOR WIRING DIAGRAM

NO SCALE

NOTES:

1. REFER TO SPECIFICATIONS FOR ACCEPTED MANUFACTURERS.
2. PROVIDE POWER PACKS AND SLAVE PACKS AS REQUIRED FOR SWITCHING AS INDICATED ON PLAN. REVISE DETAIL AS REQUIRED BY MANUFACTURER.
3. MOUNTING LOCATION PER MANUFACTURER'S RECOMMENDATION.
4. ADJUST SENSITIVITY LEVELS PER THE OWNER REQUIREMENTS.
5. PROVIDE FACTORY SUPPORT FOR AIMING/ADJUSTING OF SENSORS.
6. PLACE CEILING MOUNTED OCCUPANCY SENSORS IN CENTER OF A FULL CEILING TILE, WHERE APPLICABLE.
7. SENSOR ADJUSTMENT: BEFORE MAKING ADJUSTMENTS, MAKE SURE ROOM FURNITURE IS INSTALLED, LIGHTING CIRCUITS ARE TURNED ON, AND THE HVAC SYSTEMS ARE IN THE ON POSITION. VAV SYSTEMS SHOULD BE SET TO THEIR HIGHEST AIRFLOW. SET THE LOGIC CONFIGURATION DIP SWITCHES TO "EITHER". EITHER REQUIRES MOTION DETECTION BY ONLY ONE TECHNOLOGY. SET THE TIME DELAY PER OWNERS DIRECTION.

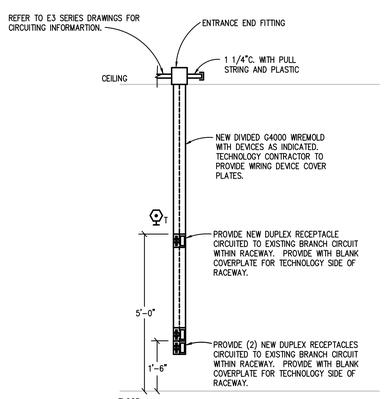


EMERGENCY LOAD TRANSFER DEVICE

NO SCALE

NOTES:

1. BASIS OF DESIGN IS BODINE. REFER TO SPECIFICATIONS FOR APPROVED MANUFACTURERS. ADJUST WIRING AS NECESSARY FOR OTHER APPROVED MANUFACTURERS.
2. PROVIDE ONE EMERGENCY LIGHTING TRANSFER DEVICE PER SWITCHING CIRCUIT

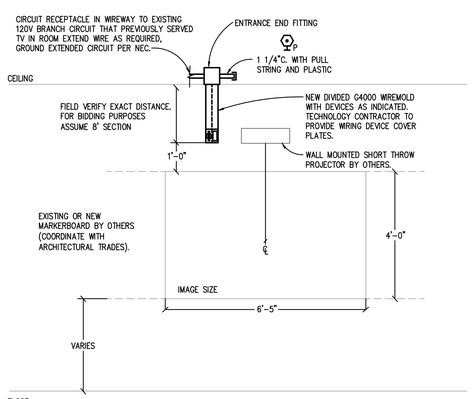


TEACHER STATION RACEWAY DETAIL

NO SCALE

NOTES:

1. COORDINATE FINAL LOCATION OF RECESSED POWER/AV DEVICES WITH OWNERS TECHNOLOGY CONTRACTOR PRIOR TO ROUGH IN. (LOCATION WILL DETERMINED BY TYPE OF PROJECTOR TO BE PROVIDE BY OTHERS).
2. AV DEVICES AND COVER PLATES SHALL BE PROVIDE BY TECHNOLOGY CONTRACTOR.

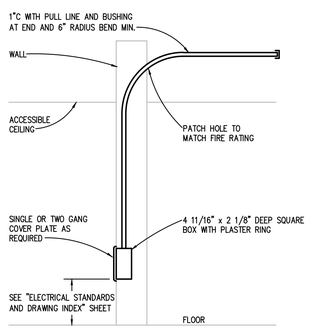


SHORT THROW PROJECTOR POWER/DATA MOUNTING DETAIL

NO SCALE

NOTES:

1. COORDINATE FINAL LOCATION OF RECESSED POWER/AV DEVICES WITH OWNERS TECHNOLOGY CONTRACTOR PRIOR TO ROUGH IN. (LOCATION WILL DETERMINED BY TYPE OF PROJECTOR TO BE PROVIDE BY OTHERS).
2. AV DEVICES AND COVER PLATES SHALL BE PROVIDE BY TECHNOLOGY CONTRACTOR.

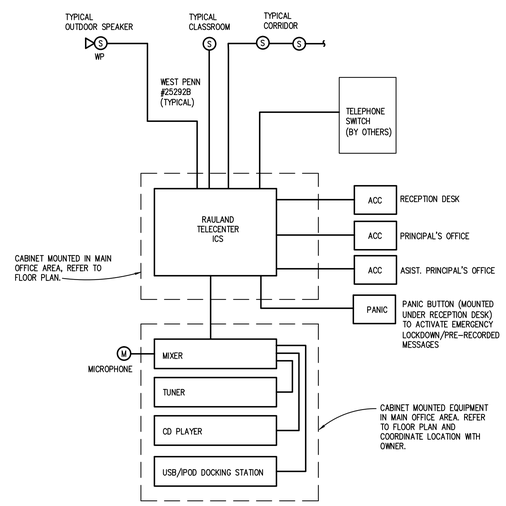


TELE/DATA OUTLET DETAIL

NO SCALE

NOTE:

IF CEILING IN ROOM IS NOT ACCESSIBLE ROUTE CONDUIT TO NEAREST ACCESSIBLE CEILING IN DIRECTION OF TELECOM ROOM.



PUBLIC ADDRESS SYSTEM DETAIL

NO SCALE

NOTES:

1. REFER TO FLOOR PLANS FOR LOCATIONS OF SPEAKERS.
2. PROVIDE ALL NEW CABLING FOR THE ENTIRE SYSTEM.
3. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. SPLICE CABLE ONLY IN ACCESSIBLE JUNCTION BOXES OR AT TERMINAL BLOCK UNITS.
5. MAKE CABLE SHIELDS CONTINUOUS AT SPLICES AND CONNECT SPEAKER CIRCUIT SHIELD TO EQUIPMENT GROUND ONLY AT AMPLIFIER.
6. INSTALL INPUT CIRCUITS IN SEPARATE CABLES AND RACEWAYS FROM OUTPUT CIRCUITS.
7. PROVIDE PROTECTION FOR EXPOSED CABLES SUBJECT TO DAMAGE.
8. SUPPORT CABLES ABOVE ACCESSIBLE CEILINGS TO KEEP THEM FROM RESTING ON CEILING TILES. USE SPRING METAL CLIPS OR PLASTIC CABLE TIES TO SUPPORT CABLES FROM STRUCTURE. INCLUDE BRIDLE RINGS OR DRIVE RINGS.
9. USE SUITABLE CABLE FITTINGS AND CONNECTORS.
10. PROVIDE MANUFACTURER'S FIELD SERVICES FOR SUPERVISING FINAL WIRING CONNECTIONS, INSPECTION AND ADJUSTING OF COMPLETED INSTALLATION, AND SYSTEMS DEMONSTRATION.
11. ADJUST TRANSFORMER TAPS FOR APPROPRIATE SOUND LEVEL.
12. ADJUST DEVICES AND WALL PLATES TO BE FLUSH AND LEVEL.
13. SEE FLOOR PLANS FOR LOCATION OF NEW CLOCKS.
14. PROVIDE MANUFACTURER'S FIELD SERVICES FOR SUPERVISING FINAL WIRING CONNECTIONS AT MASTER CLOCK SYSTEM PANEL, INSPECTION AND ADJUSTING OF COMPLETED INSTALLATION, AND SYSTEMS DEMONSTRATION.
15. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
16. ALL CIRCUITING SHALL BE IN CONDUIT, WHERE REQUIRED BY THE N.E.C.

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FARMINGTON PUBLIC SCHOOLS - 2015 BOND
2017 RENOVATIONS
WOODCREEK ELEMENTARY SCHOOL

ELECTRICAL DETAILS

PRELIMINARY ☐
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CONSTRUCTION ■
FINAL RECORD ☐

DRAWN BY: BAG
CHECKED BY: JRD

REVISIONS:
BIDS 11-30-2016

DATE: NOVEMBER 30, 2016
SHEET NO.:
E7.1WC
JOB NO. 161664A

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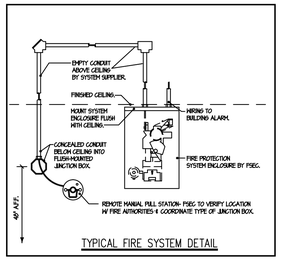
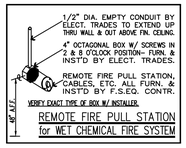
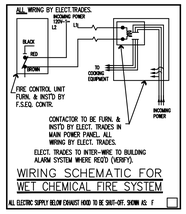


TYPICAL FIRE SYSTEM DETAIL

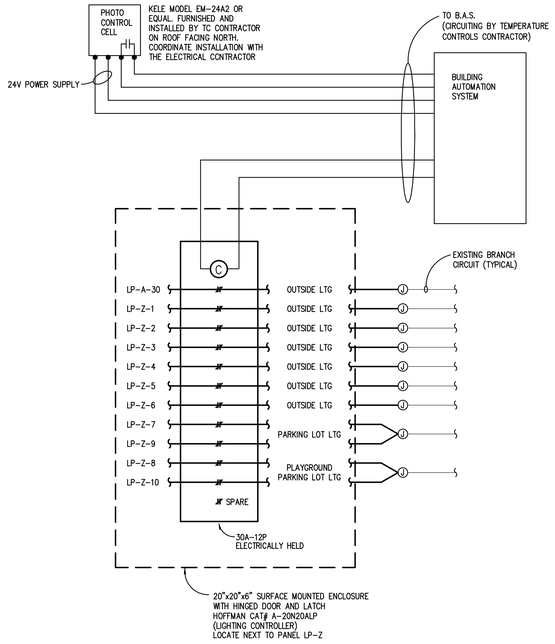


REMOTE FIRE PULL STATION for WET CHEMICAL FIRE SYSTEM



WIRING SCHEMATIC FOR WET CHEMICAL FIRE SYSTEM

ALL ELECTRIC SUPPLY BELOW EXHAUST HOOD TO BE SHUT-OFF. SHOWN AS: F

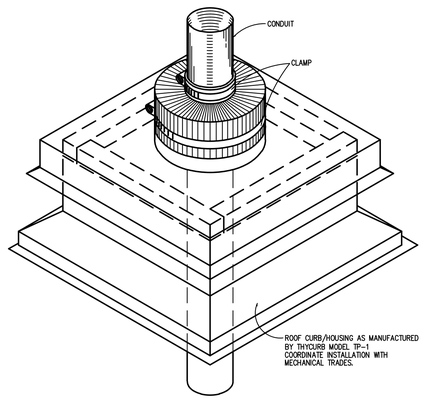


EXTERIOR LIGHTING CONTROLLER (PART OF ADD ALTERNATE E1W)

NO SCALE

NOTES

1. PROGRAM B.A.S. SYSTEM TIME SCHEDULE PER THE OWNER'S DIRECTION.
2. LIGHTING SHALL BE PHOTO CELL ON AND BAS CONTROL OFF AS DIRECTED BY OWNER.
3. INTERCEPT EXISTING CIRCUITING AND EXTEND CIRCUITING AS REQUIRED. MATCH EXISTING WIRE SIZE. VERIFY AND CIRCUIT TRACE EXISTING CIRCUITS.

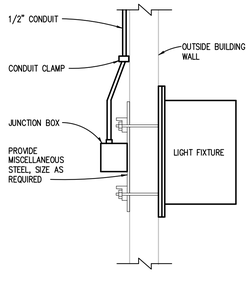


CONDUIT ROOF PENETRATION DETAIL

NO SCALE

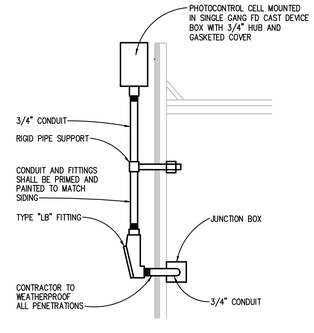
NOTES:

1. ELECTRICAL CONTRACTOR SHALL SUBCONTRACT BUILDING ROOF CONTRACTOR FOR INSTALLATION OF FLASHING.



OUTDOOR WALL MOUNTED LIGHTING FIXTURE

NO SCALE



PHOTOCONTROL CELL MOUNTING DETAIL

NO SCALE

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GENERAL NOTES for ROUGH-IN PLAN

THIS PLAN IS TO BE USED FOR BIDDING PURPOSES ONLY & MUST BE REDRAWN BY FOOD SERVICE EQUIP. CONTR. USING ARCHITECTS FINAL WORKING DRAWINGS (ARCH., ELECT., PLUMB. & VENT.) F.S.EQ. CONTR. SHALL FURNISH FULLY DIMENSIONED ROUGH-IN PLAN FOR ELECTRICAL, PLUMBING, VENTILATION, DEPRESSION & WALL OPENINGS WITHIN 30 DAYS AFTER AWARD OF CONTRACT. PLANS ARE TO BE REDRAWN & NOT TRACED-OFF OF ORIGINAL DRAWINGS.

ALL BUILDING AND/OR ROOM VENTILATION BY HVAC ENGINEER.

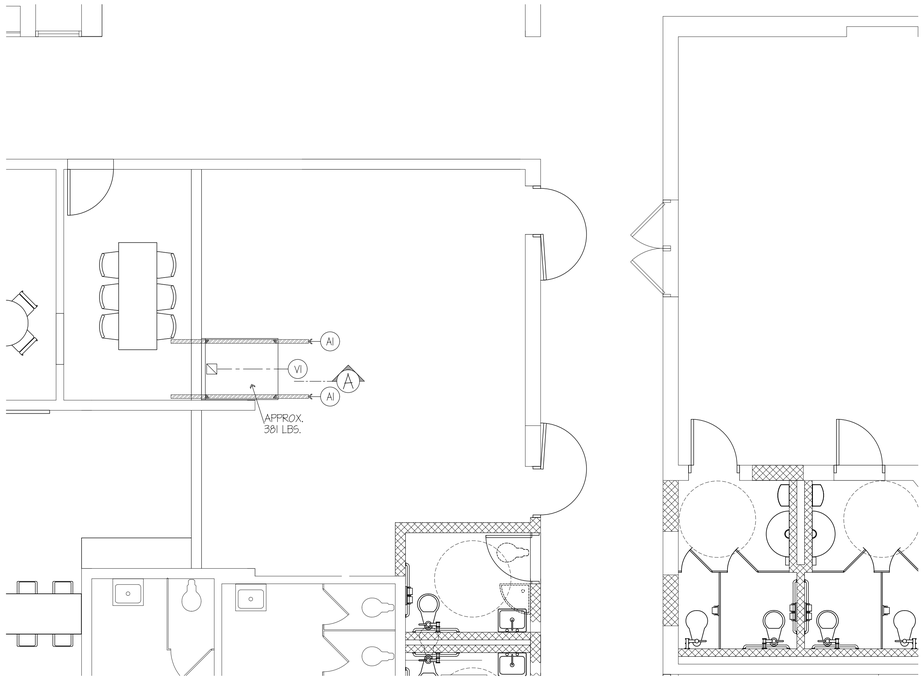
EXHAUST AIR QUANTITIES SHOWN ARE FOR COOKING EQUIPMENT EXHAUST HOODS ONLY. ADDITIONAL VENTILATION REQUIRED FOR KITCHEN AREAS TO BE ENGINEERED BY HVAC TRADES.

HVAC TRADES TO INTER-LOCK EXHAUST FANS W/ KITCHEN SUPPLY FANS.

HVAC ENGINEER TO WRITE HVAC SYSTEM SPEC FOR HVAC TRADES, TO CHECK & BALANCE KITCHEN VENTILATION. HVAC ENGINEER TO FILL-OUT & SUBMIT HEALTH DEPT. BALANCE REPORT. HVAC TRADES TO BE RESPONSIBLE FOR ADJUSTING AIR QUANTITIES TO EXACTLY AS SHOWN. HVAC TRADES TO BE A CERTIFIED TESTING CO.

VENTILATION ROUGH-IN CODE

D.F.A.	DOWN FROM ABOVE
A.F.F.	ABOVE FIN. FLOOR
B.T.C.	BRANCH TO CONNECTION
HVAC	HEATING/VENTILATING/ AIR-CONDITIONING TRADES
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR

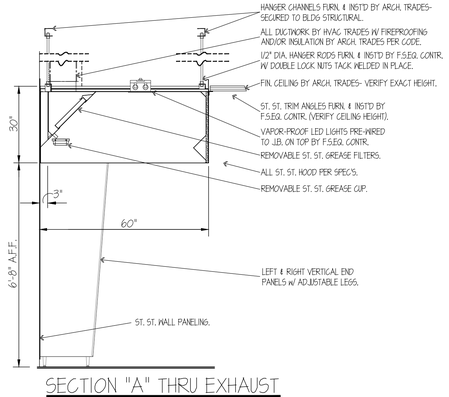


VENTILATION NOTES

(VI) 8" x 8" EXHAUST DUCT- 125 CFM (MIN) TOTAL @ -0.402" S.P. AT DUCT COLLAR. NOTE... DUCTWORK STATIC MUST BE ADDED.

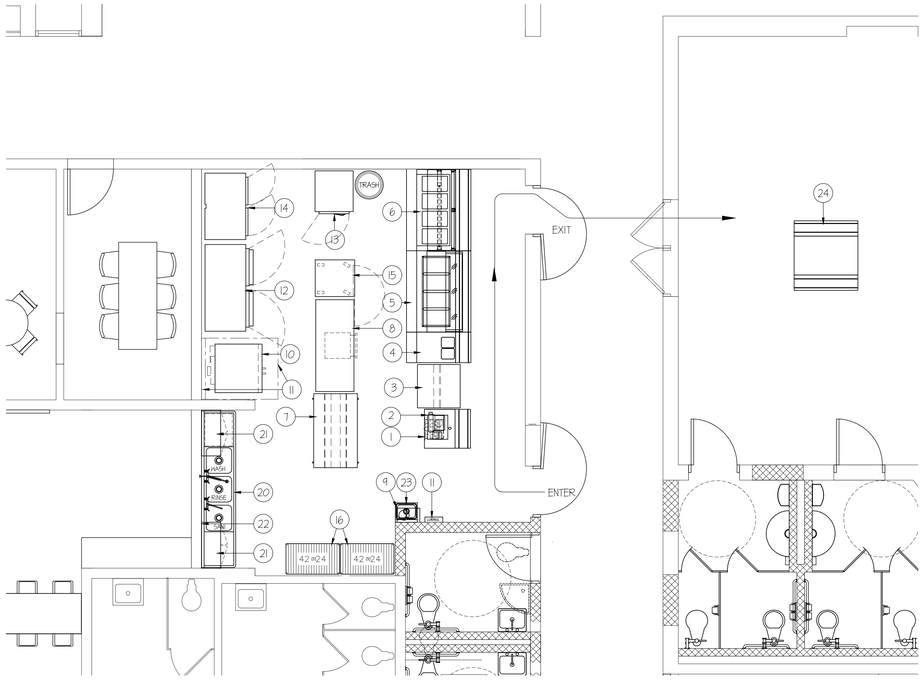
ARCHITECTURAL NOTES

(AI) (2) TWO HANGER CHANNELS FURN. & INST'D BY ARCH. TRADES- SECURED TO BUILDING STRUCTURAL TO SUPPORT EXHAUST HOOD (WEIGHT AS SHOWN). F.S.EQ. CONTR. TO VERIFY ALL SIZES & LOCATIONS.



SECTION "A" THRU EXHAUST HOOD - ITEM NO. 11

SCALE 1/2"=1'-0"



ITEM	QTY	DESCRIPTION	MANUFACTURER
1	1	34" HIGH PORTABLE CASHIERS STAND	ATLAS
2	1	POS REGISTERS	BY OWNER "NIC"
3	1	8 CASE MILK COOLER (SERVING)	BEVERAGE AIR
4	1	30" HIGH FLAT TOP COUNTER	ATLAS
5	1	30" HIGH COLD FOOD/SELF-SERVE PROTECTO	ATLAS
6	1	34" HIGH HOT FOOD/ADJ. PROTECTO	ATLAS
7	1	12 CASE MILK COOLER (STORAGE)	BEVERAGE AIR
8	1	ST. ST. WORK TABLE	ADVANCE TABCO
9	1	FIRE SYSTEM	ANSUL
10	1	DOUBLE-DECK CONVECTION OVEN	BLODGETT
11	1	ST. ST. EXHAUST HOOD/PANEL	CAPTIVEAIRE
12	1	ROLL-IN REFRIGERATOR W/ SHELVES	TRAULSEN
13	1	REACH-IN REFRIGERATOR	TRAULSEN
14	1	REACH-IN FREEZER	TRAULSEN
15	1	PORTABLE WARMING CART (DUTCH/LEXAN)	F.W.E.
16	2	WIRE STORAGE SHELVING	METRO
17		NOT USED	
18		NOT USED	
19		NOT USED	
20	1	ST. ST. THREE COMPARTMENT SINK	ADVANCE TABCO
21	2	ST. ST. WALL CABINETS	ADVANCE TABCO
22	1 LOT	ST. ST. WALL PANELING	ST. ST. FABRICATOR
23	1	ST. ST. HAND SINK	ADVANCE TABCO
24	1	PORTABLE FLAT TOP TABLE (CONDIMENTS)	ATLAS
25	1 LOT	FIELD ERECTION LABOR	FSEC

WA

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PRELIMINARY ☐
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FINAL RECORD ☐

DRAWN BY R. Whitney
CHECKED BY

REVISIONS

DATE: November 11, 2016

SHEET NO.
FSE-1

JOB NO. 161664B

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GENERAL NOTES for ROUGH-IN PLAN

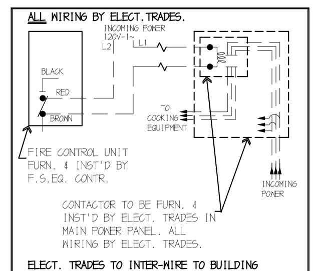
THIS PLAN IS TO BE USED FOR BIDDING PURPOSES ONLY & MUST BE REDRAWN BY FOOD SERVICE EQUIP. CONTR. USING ARCHITECTS FINAL WORKING DRAWINGS (ARCH., ELECT., PLUMB. & VENT.). F.S.EQ. CONTR. SHALL FURNISH FULLY DIMENSIONED ROUGH-IN PLAN FOR ELECTRICAL, PLUMBING, VENTILATION, DEPRESSION & WALL OPENINGS WITHIN 30 DAYS AFTER AWARD OF CONTRACT. PLANS ARE TO BE REDRAWN & NOT TRACED-OFF OF ORIGINAL DRAWINGS.

FOOD SERVICE EQUIP. CONTR. IS TO ASSIST ELECTRICAL TRADES DURING PERIOD WHILE FINAL ROUGH-IN CONNECTIONS ARE BEING MADE. F.S.EQ. CONTR. SHALL FURNISH ALL NECESSARY WIRING DETAILS AS REQUIRED. F.S.EQ. CONTR. ALSO TO HAVE FIELD SUPERVISOR ON JOBSITE AT TIME OF FINAL CONN'S.

FOOD SERVICE EQUIP. CONTR. SHALL CONTACT ELECTRICAL ENGINEER BEFORE DRAWING ROUGH-PLAN TO VERIFY EXACT VOLTAGES AVAILABLE ON JOBSITE. THIS CHECK MUST BE MADE TO INSURE PROPER VOLTAGES TO ALL EQUIPMENT.

GENERAL NOTE for ROUGH-IN PLAN

ALL SERVICES SHOWN WITH SYMBOLS CENTERED ON WALL SHOULD BE BROUGHT TO THAT POINT CONCEALED IN WALL & STUBBED-OUT AT HEIGHT SHOWN ON THIS PLAN OR F.S.EQ. CONTR'S FINAL DIMENSIONED ROUGH-IN PLAN. DO NOT STUB OUT OF FLOOR & RUN EXPOSED ON WALL.

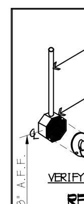


WIRING SCHEMATIC FOR WET CHEMICAL FIRE SYSTEM

ALL ELECTRIC SUPPLY BELOW EXHAUST HOOD TO BE SHUT-OFF. SHOWN AS: F

ELECTRICAL ROUGH-IN CODE

J.B.	JUNCTION BOX
	ELECTRICAL CONDUIT CONNECTION
H.P.	HORSEPOWER
KW.	KILOWATT
W.	WATT
V.	VOLT
1ph.	SINGLE PHASE
3ph.	THREE PHASE
	DUPLEX RECEPTACLE (WALL)
	SINGLE RECEPTACLE (WALL)
	DUPLEX DROP/FLOOR RECEPTACLE
	SINGLE DROP/FLOOR RECEPTACLE
	FUSED DISCONNECT SWITCH
$	SWITCH
A.F.F.	ABOVE FINISH FLOOR



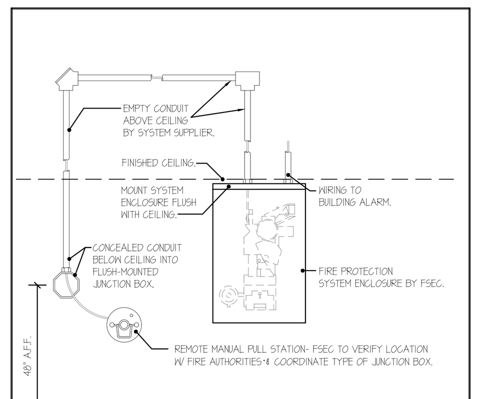
1/2" DIA. EMPTY CONDUIT BY ELECT. TRADES TO EXTEND UP THRU WALL & OUT ABOVE FIN. CEILING.

4" OCTAGONAL BOX W/ SCREWS IN 2 & 8 O'CLOCK POSITION- FURN. & INST'D BY ELECT. TRADES.

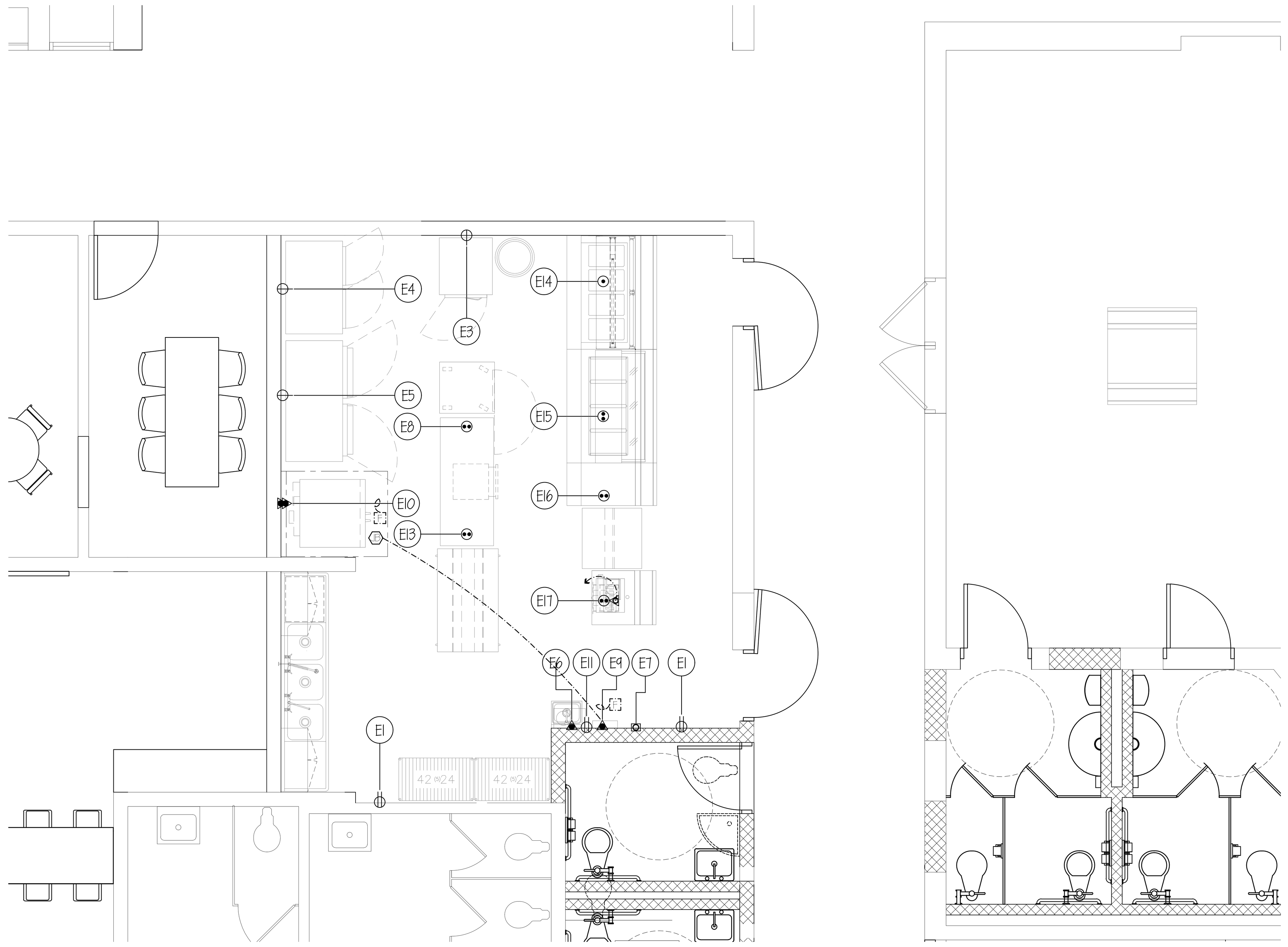
REMOTE FIRE PULL STATION, CABLES, ETC. ALL FURN. & INST'D BY F.S.EQ. CONTR.

VERIFY EXACT TYPE OF BOX W/ INSTALLER.

REMOTE FIRE PULL STATION for WET CHEMICAL FIRE SYSTEM



TYPICAL FIRE SYSTEM DETAIL



ELECTRICAL NOTES

- E1 120V-1ph. DUPLEX RECEPTACLE ON WALL 18" A.F.F. FOR GENERAL USE.
- E2 SPARE - NOT USED
- E3 7.0 AMP (LOAD) 120V-1ph. SINGLE RECEPTACLE ON WALL 7'-3" A.F.F. FOR REFRIGERATOR.
- E4 9.4 AMP (LOAD) 120V-1ph. SINGLE RECEPTACLE ON WALL 7'-3" A.F.F. FOR FREEZER.
- E5 11.4 AMP (LOAD) 120V-1ph. SINGLE RECEPTACLE ON WALL 7'-3" A.F.F. FOR ROLL IN REFRIGERATOR.
- E6 8.0 AMP (LOAD) 120V-1ph. COND. CONN. OUT OF WALL FOR FIRE SYSTEM SHUT-OFF. ALL INTER-WIRING BY ELECT. TRADES. SEE DETAIL THIS SHEET.
- E7 4" OCTAGON BOX FURN. & INST'D BY ELECT. TRADES- ON WALL 48" A.F.F. FOR FIRE SYSTEM REMOTE PULL STATION BY F.S.EQ. CONTR. SEE DETAIL THIS SHEET.
- E8 13.8 AMP (LOAD) 120V-1ph. FLUSH MOUNTED FLOOR RECEPTACLE FOR PORTABLE WARMER.
- E9 20 AMP (CIRCUIT) 120V-1ph. COND. CONN. ON WALL FOR HOOD SYSTEM, LIGHTS & TEMPERATURE SENSOR. HOOD LIGHTS PRE-WIRED BY F.S.EQ. CONTR. TO J.B. ON TOP W/ FINAL CONN. BY ELECT. TRADES. LIGHT & FAN CONTROL SWITCHES & BOX FURN. BY F.S.EQ. CONTR. & INST'D BY ELECT. TRADES. ELECT. TRADES TO PROVIDE POWER & INTER-WIRING TO EXHAUST FANS/MAKE-UP AIR UNITS.
- E10 (2) 11 KW (LOAD) 208V-3ph COND. CONN. OUT OF WALL FOR DOUBLE DECK CONVECTION OVEN.
- E11 1.0 AMP (LOAD) 120V-1ph. SINGLE RECEPTACLE ON WALL 12" A.F.F. FOR HAND SINK (TRANSFORMER).
- E12 SPARE - NOT USED
- E13 8.2 AMP (LOAD) 120V-1ph. FLUSH MOUNTED FLOOR RECEPTACLE FOR MILK COOLER.
- E14 4.0 KW. 120/208V-1ph. (4 WIRE) SINGLE FLOOR RECEPTACLE FOR HOT FOOD COUNTER.
- E15 20 AMP (CIRCUIT) 120V-1ph. DUPLEX FLOOR RECEPTACLE FOR COLD COUNTER.
- E16 4.2 AMP (LOAD) 120V-1ph. FLOOR MOUNTED RECEPTACLE FOR MILK COOLER.
- E17 20 AMP (CIRCUIT) 120V-1ph. FLOOR MOUNTED RECEPTACLE FOR POS STATION. DATA LINES & RECEPTACLE BY ELECT. TRADES

NOTE...

ALL ADDITIONAL RECEPTACLES, CONN.'s, WIRING, ETC. TO BE SHOWN BY ELECT. ENGINEER.

ALL 120v DUPLEX RECEPTACLES WITHIN KITCHEN AREAS & WITHIN 72" OF A SINK MUST BE GFCI PROTECTED BY ELECT. TRADES.

ELECT. TRADES TO FURN. & INSTALL ALL LINE DISCONNECT SWITCHES AS REQUIRED TO MEET STATE & LOCAL CODE.

GENERAL NOTES for ROUGH-IN PLAN

THIS PLAN IS TO BE USED FOR BIDDING PURPOSES ONLY & MUST BE REDRAWN BY FOOD SERVICE EQUIP. CONTR. USING ARCHITECTS FINAL WORKING DRAWINGS (ARCH., ELECT., PLUMB. & VENT.). F.S.EQ. CONTR. SHALL FURNISH FULLY DIMENSIONED ROUGH-IN PLAN FOR ELECTRICAL, PLUMBING, VENTILATION, DEPRESSION & WALL OPENINGS WITHIN 30 DAYS AFTER AWARD OF CONTRACT. PLANS ARE TO BE REDRAWN & NOT TRACED-OFF OF ORIGINAL DRAWINGS.

FOOD SERVICE EQUIP. CONTR. IS TO ASSIST PLUMBING TRADES DURING PERIOD WHILE FINAL ROUGH-IN CONNECTIONS ARE BEING MADE. F.S.EQ. CONTR. SHALL FURNISH ALL NECESSARY PIPING DETAILS AS REQUIRED. F.S.EQ. CONTR. ALSO TO HAVE FIELD SUPERVISOR ON JOBSITE AT TIME OF FINAL CONN'S.

FOOD SERVICE EQUIP. CONTR. SHALL CONTACT PLUMB. ENGINEER BEFORE DRAWING ROUGH-IN PLAN TO VERIFY TYPE OF GAS ON JOBSITE. WHEN STEAM IS AVAILABLE, PRESSURE IS TO BE VERIFIED AND ALL EQUIPMENT TO BE FURNISHED ACCORDINGLY.

GENERAL NOTE for ROUGH-IN PLAN

ALL SERVICES SHOWN WITH SYMBOLS CENTERED ON WALL SHOULD BE BROUGHT TO THAT POINT CONCEALED IN WALL & STUBBED-OUT AT HEIGHT SHOWN ON THIS PLAN OR F.S.EQ. CONTR'S FINAL DIMENSIONED ROUGH-IN PLAN. DO NOT STUB OUT OF FLOOR & RUN EXPOSED ON WALL.

FLOOR DRAIN SCHEDULE

ALL BY PLUMB. TRADES- TYPICAL SIZES SHOWN.

TYPE #1: 6" DIA. W/ FULL NICKLE-BRONZE STRAINER. FLUSH W/ FINISH FLOOR.

TYPE #2: 6" DIA. W/ FULL NICKLE-BRONZE STRAINER & 4" HIGH NICKLE-BRONZE FUNNEL. FLUSH W/ FINISH FLOOR.

TYPE #3: 12" x 12" x 8 1/2" DEEP W/ FULL NICKLE-BRONZE GRATE TOP, ACID RESISTANT INTERIOR & PERFORATED REMOVABLE ENAMELED BASKET. FLUSH W/ FINISH FLOOR.

TYPE #4: 12" x 12" x 10" DEEP W/ FULL ST. ST. REMOVABLE GRATE TOP & REMOVABLE ST. ST. PERFORATED BASKET. FLUSH W/ FINISH FLOOR.

INDIRECT WASTE SCHEDULE

ALL BY PLUMB. TRADES- TYPICAL SIZES SHOWN.

TYPE #5: 6" DIA. W/ FULL NICKLE-BRONZE STRAINER & 4" HIGH NICKLE-BRONZE FUNNEL.

TYPE #6: 8 1/2" DIA. W/ WHITE PORCELIN INTERIOR & NICKLE-BRONZE INTERIOR DOME STRAINER.

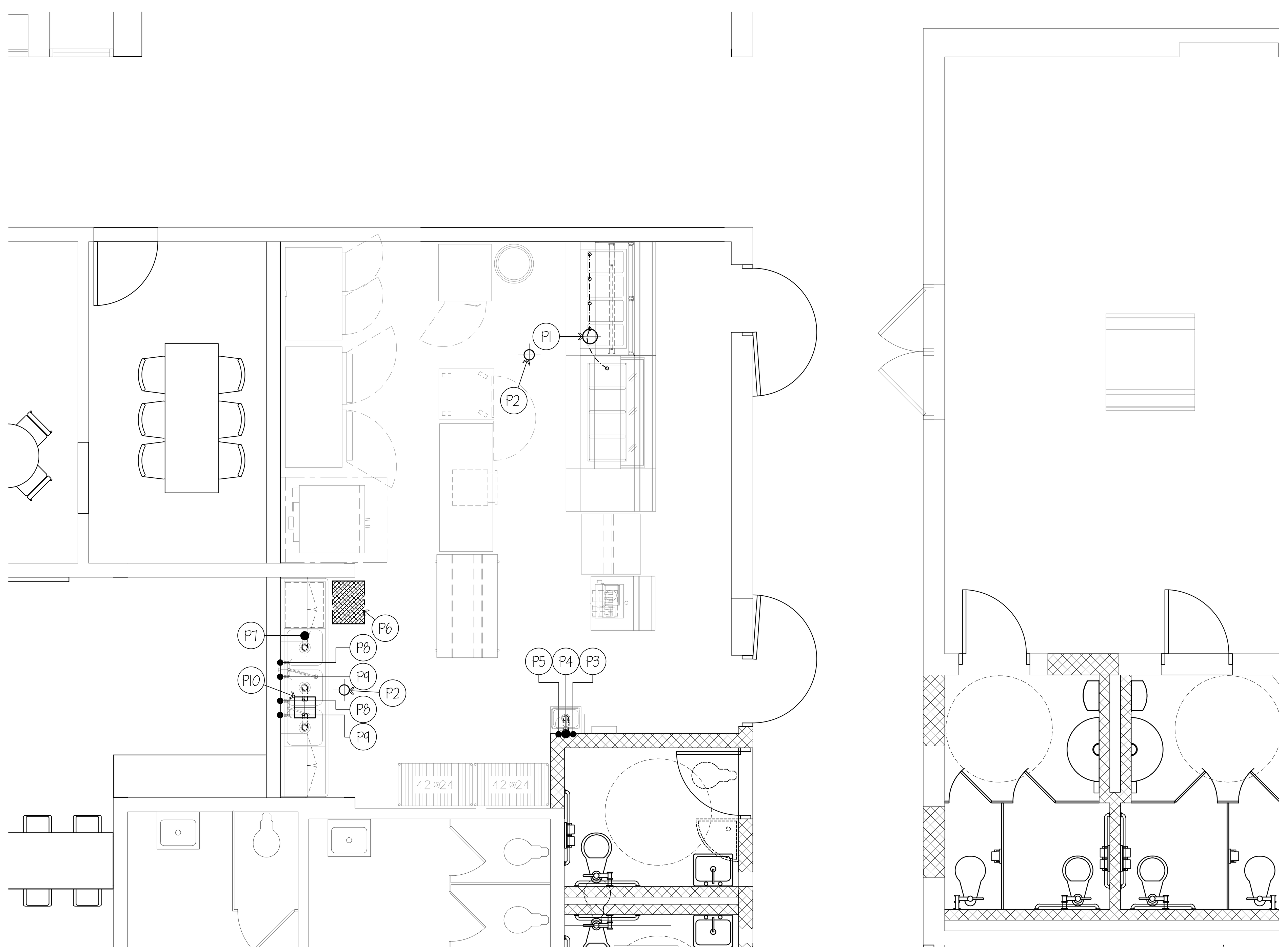
TYPE #7: 12" x 12" x 10" DEEP NO GRATE TOP W/ ACID RESISTANT INTERIOR & NICKLE-BRONZE INTERIOR DOME STRAINER.

TYPE #8: 12" x 12" x 10" DEEP W/ 1/4 CUT-OUT NICKLE-BRONZE GRATE TOP, ACID RESISTANT INTERIOR & NICKLE-BRONZE INTERIOR DOME STRAINER.

PLUMBING ROUGH-IN CODE

H.W.	HOT WATER
C.W.	COLD WATER
W.	WASTE
I.W.	INDIRECT WASTE
F.D.	FLOOR DRAIN
F.T.F.D.	FUNNEL-TYPE FLOOR DRAIN
	FLOOR SINK
G.	GAS (NATURAL)
A.F.F.	ABOVE FINISH FLOOR

SYMBOL DENOTES DRAIN/WASTE/CONDENSATE LINE OF VARIOUS SIZE, TO BE FURNISHED & INSTALLED BY PLUMB. TRADES- TO RUN FROM EQUIPMENT TO NEAREST F.D./F.S./I.W./H.O. VERIFY EXACT SIZE WITH FSEC FINAL BUY-OUT BOOKLET.



PLUMBING NOTES

- P1 8 1/2" DIA. I.W.- TYPE #6. SEE SCHEDULE THIS SHEET.
- P2 6" DIA. F.D.- TYPE #1. SEE SCHEDULE THIS SHEET. FLUSH w/ FIN. FLOOR.
- P3 1/2" H.W. OUT OF WALL. — FOR HAND SINK.
- P4 1 1/2" WASTE OUT OF WALL. — FOR HAND SINK.
- P5 1/2" C.W. OUT OF WALL. — FOR HAND SINK.
- P6 GREASE TRAP FURN. & INST'D BY PLUMB. TRADES- FLUSH w/ FIN. FLOOR & SIZED FOR (1) ONE 24" x 24" x 14" DP. SINK w/ F.D. TIED INTO DOWN-SIDE PER CODE. MECHANICAL ENGINEER TO DETERMINE EXACT LOCATION/
- P7 2" WASTE STUB-UP THRU FLOOR FOR (1) ONE SINK- RUN TO G.T.
- P8 3/4" H.W. OUT OF WALL FOR POT SINK FAUCET.
- P9 3/4" C.W. OUT OF WALL FOR POT SINK FAUCET.
- P10 12" x 12" I.W.- TYPE #7. SEE SCHEDULE THIS SHEET. NO GRATE TOP.
- P11 NOT USED

NOTE...

PLUMB. TRADES TO RUN ALL DRAIN/WASTE/CONDENSATE LINES FROM EQUIPMENT TO NEAREST F.D./F.S./I.W./H.O.

ALL ADDITIONAL PIPING, DRAINS, F.D.'s, ETC. TO BE SHOWN BY MECH. ENGINEER.

ALL ADDITIONAL P.R.V.s, ATMOSPHERIC V.B.s, V.B.s, SHUT-OFF VALVES, SHOCK-STOPS, ETC., TO BE FURN. & INST'D BY PLUMB. TRADES.

E. F. WHITNEY, INC.
DESIGN CONSULTANTS OF FOOD SERVICE FACILITIES
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FARMINGTON PUBLIC SCHOOLS
2016 RENOVATIONS
ELEMENTARY RENOVATIONS

PRELIMINARY	☐
DESIGN DEVELOPMENT	■
CONSTRUCTION	☐
FINAL RECORD	☐

DRAWN BY R. Whitney
CHECKED BY -

REVISIONS

DATE: November 11, 2016

SHEET NO.

FSE-2

JOB NO. 161664B

HOOD INFORMATION – Job#2500464

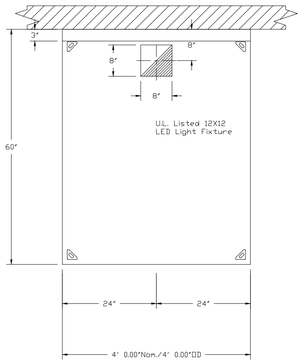
HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM TOTAL EXH. CFM	RISER(S) WIDTH	RISER(S) LENG.	RISER(S) DIA.	RISER(S) CFM	RISER(S) S.P.	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	HOOD CONFIG. ROW
1		6030 ND-2	4' 0.00"	450 Deg.	725	8"	8"		725	-0.402"	304 SS 100%	ALONE	ALONE

HOOD INFORMATION

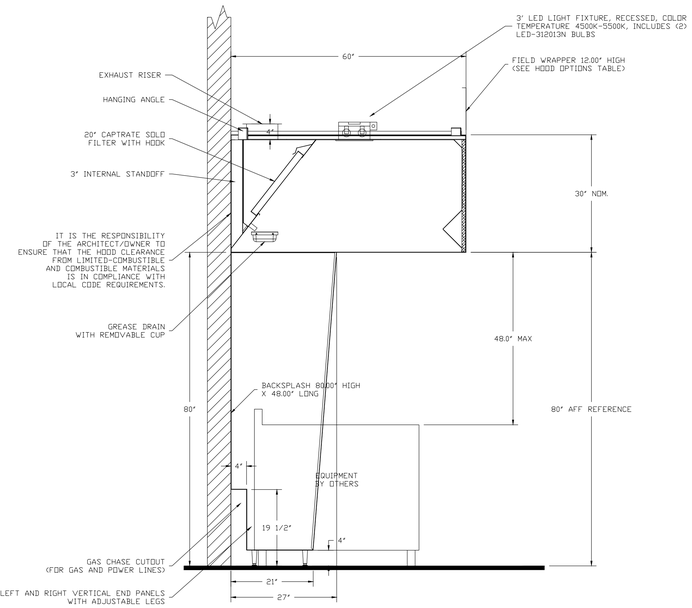
HOOD NO.	TAG	FILTER(S) TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 9 MICRONS	LIGHT(S) QTY.	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WGHT
1		Captrate Solo Filter	2	20"	16"	93% See Filter Spec.	1	3' LED Light	NO						NO	381 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		FIELD WRAPPER 12.00" High Front, Left, Right
		BACKSPLASH 80.00" High X 48.00" Long 304 SS Vertical
		RIGHT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 4" Legs 304 SS
		LEFT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 4" Legs 304 SS



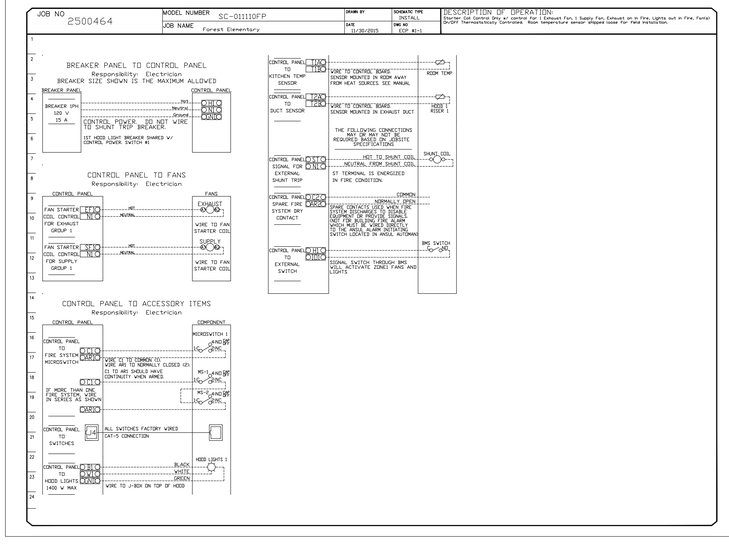
PLAN VIEW – Hood #1
4' 0.00" LONG 6030ND-2

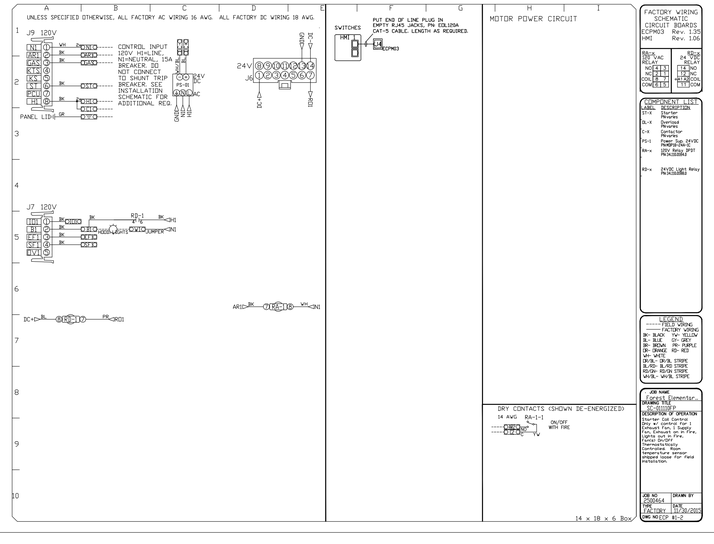


SECTION VIEW – MODEL 6030ND-2
HOOD – #1

ELECTRICAL PACKAGES – Job#2500464

NO.	TAG	PACKAGE #	LOCATION	SWITCHES LOCATION	SWITCHES QUANTITY	OPTION	FANS CONTROLLED TYPE	ø	H.P.	VOLT	FLA
1		SC-011110FP	Wall Mount In SS Box	SS Wall Mount Box	1 Light 1 Fan	Smart Controls Thermostatic Control					





REVISIONS

DESCRIPTION	DATE:

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MICHIGAN OFFICE
3876 East Paris Ave SE, Suite 18, Grand Rapids, MI. 49512 PHONE: (616) 942-9881 FAX: (919) 227-5984 EMAIL: reg77@captiveaire.com

Woodcreek Elementary
FARMINGTON, MI, 48331

DATE: –
DWG.#: 2500464
DRAWN BY: DKC
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

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DRAWN BY R. Whitney
CHECKED BY –

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DATE: November 11, 2016
SHEET NO.
FSE-3

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